



FEC2025

30th IAEA FUSION ENERGY CONFERENCE

13–18 OCTOBER **2025**

 **CHENGDU**, PEOPLE'S REPUBLIC OF CHINA

PROGRAMME AND CONFERENCE MATERIAL

Organized by the:



Hosted by the People's Republic of China through the China Atomic Energy Authority (CAEA)

**30th IAEA
Fusion Energy Conference
13th - 18th October 2025
Chengdu
People's Republic of China**

Programme & Conference Material

Introduction

The International Atomic Energy Agency (IAEA) fosters the exchange of scientific and technical results in fusion research and development through its series of Fusion Energy Conferences.

The 30th IAEA Fusion Energy Conference (FEC 2025) aims to provide a global forum for the exchange of scientific and technical results in fusion energy research and development on a range of themes, including experiments and theory for magnetic, inertial, and innovative confinement concepts, fusion technology and materials, and potential pathways to fusion energy.

According to the IAEA's [Fusion Device Information System](#) (FusDIS), as of 2025, there are almost 150 experimental fusion devices and testing facilities operating, under construction or being planned, and more than 20 fusion plant designs under development. Recent scientific and technical advances, coupled with a dynamic private sector, and the pressing concerns of climate change and energy security, have shifted the focus to addressing the remaining challenges. These include demonstrating the technological feasibility of fusion power and ensuring its safety and economic viability as a sustainable energy source.

The scope of FEC 2025 is, therefore, intended to reflect the priorities of this new era in fusion energy research, development, demonstration, and preparation to deployment. The conference aims to serve as a platform for sharing the results of research and development efforts in both the public and private sector, that have been shaped by these new priorities, and to thereby help in pinpointing worldwide advances in fusion experiments, theory, technology, engineering, materials, advanced concepts, safety, socioeconomics, and commercialization pathways. The conference will thus help in defining the way forward.

With the participation of international organizations as well as more than 50 countries and a great number of research organisations, academia, and private companies, it is expected that this conference will, like previous conferences in the series, serve to identify the possibilities and means for continuous and effective international collaboration in this area.

The [30th IAEA Fusion Energy Conference](#) is being hosted by the China Atomic Energy Authority (CAEA) from 13 to 18 October 2025. [Previous conferences in this series](#) were held in [Salzburg, Austria \(1961\)](#), [Culham, United Kingdom \(1965\)](#), [Novosibirsk, Russian Federation \(1968\)](#), [Madison, United States of America \(1971\)](#), [Tokyo, Japan \(1974\)](#), [Berchtesgaden, Germany \(1976\)](#), [Innsbruck, Austria \(1978\)](#), [Brussels, Belgium \(1980\)](#), [Baltimore, United States of America \(1982\)](#), [London, United Kingdom \(1984\)](#), [Kyoto, Japan \(1986\)](#), [Nice, France \(1988\)](#), [Washington DC, United States of America \(1990\)](#), [Würzburg, Germany \(1992\)](#), [Seville, Spain \(1994\)](#), [Montreal, Canada \(1996\)](#), [Yokohama, Japan \(1998\)](#), [Sorrento, Italy \(2000\)](#), [Lyon, France \(2002\)](#), [Vilamoura, Spain \(2004\)](#), [Chengdu, China \(2006\)](#), [Geneva, Switzerland \(2008\)](#), [Daejeon, Republic of Korea \(2010\)](#), [San Diego, United States of America \(2012\)](#), [St. Petersburg, Russian Federation \(2014\)](#), [Kyoto, Japan \(2016\)](#), [Ahmedabad, India \(2018\)](#), [Nice, France \(postponed from 2020 to 2021 and held online because of the global COVID-19 pandemic\)](#) [London, United Kingdom \(2023\)](#).

Programme Committee

Chair: Takashi Inoue | Japan

Vice Chair: Elisabeth Wolfrum | Germany

Sergey Pikuz | Australia
Gustavo Paganini Canal | Brazil
Wulyu Zhong | People's Republic of China
Rui Ding | People's Republic of China
Ge Zhuang | People's Republic of China
Sylvie Jacquemot | EU – France
Yann Camenen | EU – France
Marco Wischmeier | EU – Germany
Paola Batistoni | EU – Italy
Eleonora Viezzer | EU - Spain
Moises Weber | EU - Spain
Bharti Magesh | India
Mainak Bandyopadhyay | India
Peter de Vries | ITER Organization
Francesca Poli | ITER Organization
Takahiro Suzuki | Japan
Masaki Osakabe | Japan
Ryosuke Kodama | Japan
Hiroyasu Tanigawa | Japan
Murakami Sadayoshi | Japan
Jay Hyun Kim | Republic of Korea
Eisung Yoon | Republic of Korea
Sergei Lebedev | Russian Federation
Bel'kov Sergei Arkad'evich | Russian Federation
Alexander Melnikov | Russian Federation
Fulvio Militello | UK
Fernanda Rimini | UK
Michael Porton | UK
Alex Creely | USA
Alessandro Bortolon | USA
Colleen Nehl | USA
Carmen Menoni | USA
Arnie Lumsdaine | USA
Philip Snyder | USA

Conference Secretariat

IAEA Scientific Secretaries:

Matteo Barbarino

Danas Ridikas

Physics Section | Division of Physical and Chemical Sciences
Department of Nuclear Sciences and Applications
International Atomic Energy Agency

Frederik Reitsma

Nuclear Power Technology Development Section | Division of Nuclear Power
Department of Nuclear Energy
International Atomic Energy Agency

IAEA Administration and Organisation:

Sanjai Padmanabhan

Nancy Herter

Conference Services Section | Division of Conference and Document Services
Department of Management
International Atomic Energy Agency

IAEA Scientific and Administrative Support:

Palak Jain

Lee Packer

Ziyue Li

Adrian Langley

Yota Koike

Tatiana Kornelyuk

Physics Section | Division of Physical and Chemical Sciences
Department of Nuclear Sciences and Applications
International Atomic Energy Agency

Ryan Wagner

Laura Wheatley

Nuclear Power Technology Development Section | Division of Nuclear Power
Department of Nuclear Energy
International Atomic Energy Agency

Local Organisation:

Ning Shen

Haoyue Chen

Li Yang

Yang Chen

Southwestern Institute of Physics
Chengdu, People's Republic of China

Conference Material

Contributed papers will be published electronically on the [IAEA Fusion Portal](#) under the FEC dedicated webpage as a part of the FEC material.

This book contains all synopses accepted for the conference, including their associated pre-print, presentation and poster. Synopses have been edited for style uniformity. The views expressed remain the responsibility of the named authors. No responsibility is held by the organizers for any material reproduced, or linked, in this book.

IAEA Publications

All IAEA publications may be ordered from the

Sales and Promotion Unit,

International Atomic Energy Agency,

P.O. Box 100, A-1400 Vienna,

Austria Fax: +43 1 2600-29302

sales.publications@iaea.org

www.iaea.org/Publications/index.html

Nuclear Fusion Journal

Participants have been invited to submit their paper for possible publication in the IAEA journal, [Nuclear Fusion](#). If your institution does not have access to the journal, pdfs of these FEC derived articles can be requested from nf@iaea.org.

Links on the abstract pages direct the reader to both the pre-print and the Nuclear Fusion journal, respectively.

Participation in an IAEA Scientific Meeting

Governments of Member States and those organizations whose activities are relevant to the meeting subject matter are invited to designate participants in the IAEA scientific conferences and symposia. In addition, the IAEA itself may invite a limited number of scientists as invited speakers. Only participants designated or invited in this way are entitled to present papers and take part in the discussions.

Representatives of the press, radio, television or other information media and members of the public, the latter as “observers”, may also be authorized to attend, but without the right to take part in the proceedings.

Individuals interested in participating in any of the IAEA meetings should request information from the Government authorities of their own countries, in most cases the Ministry of Foreign Affairs or national atomic energy authority.

Working Language & Resolutions

Working Language: English. No simultaneous translation will be provided.

Resolutions: No resolutions may be submitted for consideration on any subject; no votes will be taken.

Information for Participants

The [conference website](#) contains links to many helpful guides. Notably, the [Indico](#) conference system is used for all correspondence concerning contributions.

Overview of Contributions

This book contains all abstracts accepted by the FEC programme committee. Note that abstracts have been edited for style uniformity.

Overview of Contributions (as of October 8, 2025)

2 Keynote presentations

18 Overview talks

73 Regular talks

4 Rapporteur/Rapporteured talks

36 Overview posters

520 Regular posters

2 Post deadline talks

29 Post deadline poster

Overview posters will be exhibited during the entire conference. All oral presentations will also be displayed as posters according to the programme.

Rapporteur papers are identified by the letter “a” after the paper number. Rapporteured papers are identified by the letters “b” after the paper number.

Participation in an IAEA Scientific Meeting

Topics

OV – Overview

Device overview, programme overview, topic overview

EX – Magnetic Fusion Experiments including Validation

Experimental plasma physics including validation

EX-C – Confinement

Confinement and transport, including scenario development

EX-S - Stability

Stability, including disruptions, runaways, control, mitigation & consequences

EX-W - Waves

Plasma waves and energetic particle interactions

EX-D - Divertor

Divertor/SOL physics and general power handling

EX-E - Edge Transient Control

Edge transients, ELMs, mitigation & benign/no ELM scenarios, 3D-physics

EX-M - Material Interactions

Materials-plasma interactions

EX-P - Pedestal , Core-edge, Turbulence

Pedestal physics and core-edge integration, turbulence, L-H transition

EX-H - Heating & Current Drive

Heating and current drive physics, antenna-plasma interactions

TH - Magnetic Fusion Theory and Simulation

Theory and simulation

TH-C - Confinement

Confinement and transport, including scenario development

TH-S - Stability

Stability, including disruptions, runaways, control, mitigation & consequences

TH-W - Waves

Plasma waves and energetic particle interactions

TH-D - Divertor

Divertor/SOL physics and general power handling

TH-E - Edge Transient Control

Edge transients, ELMs, mitigation & benign/no ELM scenarios, 3D-physics

TH-M - Material Interactions

Materials-plasma interactions

TH-P - Pedestal, Core-edge, Turbulence

Pedestal physics and core-edge integration, turbulence, L-H transition

TH-H - Heating & Current Drive

Heating and current drive physics, antenna-plasma interactions

TEC - Fusion Energy Technology

Not plasma interaction

TEC-MTL - Material Developments

Material Developments

TEC-IVC - In Vessel Components

In Vessel Components

TEC-HCD - Heating & Current Drive

Heating & Current Drive

TEC-ITR - ITER Technology

ITER Technology

TEC-FNT - Fusion Nuclear Technology

Includes nuclear science & technology research

TEC-CTL - Control

Control software and hardware, control algorithms and theory, control demonstration, AI-driven control

TEC-R - Robotics and Remote Maintenance

Robotics and Remote Maintenance

TEC-T - Tritium

Tritium

IFE - Inertial Fusion Energy

IFE - Inertial Fusion Energy

Experiments, theory and modelling, materials, power plant design, targets, drivers

IAC - Innovative and Alternative Fusion Concepts

IAC - Innovative and Alternative Fusion Concepts

Experiments, theory and modelling, linear, non-magnetic, magneto-inertial, hybrid concepts

PWF - Pathway to Fusion

PWF - Pathway to Fusion

Fusion plants (e.g., DEMO, pilot plants), timelines, roadmaps, supporting facilities, partnership frameworks, commercialization, supply chains, education and training, socioeconomic and environmental aspects, licensing

Conference Location

The 30th Fusion Energy Conference (FEC2025) will be held at Tianfu International Conference Center in Chengdu, People's Republic of China. The Conference will be organized by the IAEA and hosted by the People's Republic of China through the China Atomic Energy Authority (CAEA).

FEC Programme 2025

Day Date	Tuesday October 14, 2025	Day Date	Wednesday October 15, 2025		Day Date	Thursday October 16, 2025		Day Date	Friday October 17, 2025			Day Date	Saturday October 18, 2025		
09:00 - 10:00	<i>O/1</i> <i>Opening</i>	08:30 – 10:10	<i>OV/4</i> Stellarator, Theory & Spherical Tokamak		08:30 – 10:10	<i>EX/3</i> Long Pulse	<i>P3</i> Posters	08:30 – 10:10	<i>TH/4</i> Next Generation Modelling	<i>TEC/3 EX/6 & TH/5</i> Operation Control		<i>P5</i> Posters	08:30-10:10	<i>EX/10 & PD/1</i> Transport Barriers, Post-deadline	<i>P7</i> Posters
10:00 - 11:00	Coffee Break														
11:00 - 11:30	<i>FEC Technical Programme</i>	10:10 – 10:40	Coffee Break	<i>P1</i> Posters	10:10-10:40	Coffee Break		10:10-10:40	Coffee Break		10:10-10:40		Coffee Break		
11:30 - 12:20	<i>OV/1</i> Overview: Fusion Science & Technology	10:40 – 12:20	<i>TEC/1</i> ITER Technology		10:40 – 12:20	<i>IFE/1</i> Inertial Fusion Energy		10:40 – 12:20	<i>EX/7 & TH/6</i> Scenarios & Control	<i>TH/7 & EX/8</i> Burning Plasma	10:40 – 12:45		<i>OV/5</i> Innovative Facilities and Technologies		
12:20 - 14:00	Lunch	12:20 – 14:00	Lunch		12:20 - 14:00	Lunch		12:20 - 14:00	Lunch		12:45 - 14:00		Lunch		
		13:00 – 14:00	Lunch Event (CAEA & CNNC)	13:00 – 14:00	Lunch Event (WiF)										
14:00 - 15:40	<i>OV/2</i> Overview: Tokamak Progress 1	14:00 – 15:40	<i>TH/1 & EX/1</i> Exhaust		<i>P2</i> Posters	14:00 – 15:40	<i>TH/3 & EX/4</i> Disruption, RE & Stellarator	<i>P4</i> Posters	14:00 – 15:40	<i>TEC/4</i> Fusion Nuclear Technology		<i>P6</i> Posters	14:00 – 15:40	<i>PWF/1</i> Pathways to Fusion	
15:40 - 16:10	Coffee Break	15:40 - 16:10	Coffee Break			15:40 - 16:10	Coffee Break		15:40 - 16:10	Coffee Break			15:40-15:55	<i>Early Career Poster Awards</i>	
16:10 - 17:50	<i>OV/3</i> Overview: Tokamak Progress 2	16:10 – 17:50	<i>EX/2 & TH/2</i> Core-edge Integration, Pedestal			16:10 – 17:50	<i>TEC/2 & EX/5</i> PFC & Materials		16:10 – 17:30	<i>TH/8 & EX/9</i> Tungsten	<i>TEC/5 & IAC/1</i> Enabling Technologies		15:55 – 16:55	<i>Closing</i>	

Tuesday 14 October 2025

O/1 **FEC Technical Programme** (11:00-11:30)

11:00	O/1-1	FEC 2025 Administrative and Technical Remarks	IAEA
11:10	O/1-2	Xuru Duan Status and prospects of Fusion Research at the Southwestern Institute of Physics	China

OV/1 **Overview 1: Fusion Science and Technology**

Chairperson: Xuru Duan (China) (11:30-12:20)

11:30	OV/1-1	J. Li Overview of CRAFT project progress	China
11:55	OV/1-2	P. Barabaschi Progress of ITER and its value for fusion	ITER

OV/2 **Overview 2: Tokamak Progress 1**

Chairperson: Fernanda Rimini (UK) (14:00-15:40)

14:00	OV/2-1	M. Wischmeier Results from the last DD and DT JET campaigns in the framework of the EUROfusion Tokamak Exploitation activ- ity	Italy
14:25	OV/2-3	X. Gong Overview of recent experimental results on EAST in support of ITER new research plan	China
14:50	OV/2-4	J. Bucalossi	France

15:15	OV/2-5	Overview of WEST contributions to the new ITER baseline and fusion power plant J. Garcia First JT-60SA plasma operation and plans in view of ITER and DEMO	France
-------	--------	---	--------

OV/3 Overview 3: Tokamak Progress 2

Chairperson: Rui Ding (China)

(16:10-17:50)

16:10	OV/3-1	Y. Nam Overview of KSTAR experiments and future plan	Korea
16:35	OV/3-2	T. Pütterich Overview of ASDEX Upgrade results	Germany
17:00	OV/3-3	W. Zhong HL-3 research towards high-performance plasma and power exhaust solution	China
17:25	OV/3-4	C. Theiler Progress and innovations in the TCV tokamak research programme	Switzerland

Wednesday 15 October 2025

OV/4 Overview 4: Stellarator, Theory and Spherical Tokamak

Chairperson: Francesca Poli (ITER Organization)

(08:30-10:10)

08:30	OV/4-1	O. Grulke Overview of Wendelstein 7-X high-performance operation	Germany
08:55	OV/4-2	K. Tanaka Recent advances in plasma control and physics research in the large helical devices	Japan
09:20	OV/4-4	F. Jenko Towards Digital Twins of fusion systems	Germany
09:45	OV/4-5	J. Harrison	UK

Overview of the MAST Upgrade physics programme testing novel concepts at low aspect ratio to inform future devices

TEC/1

ITER Technology

Chairperson: Hiroyasu Tanigawa (Japan)

(10:40-12:20)

10:40	TEC/1-1	S. Yoon The 2024 new baseline ITER research plan	Korea
11:00	TEC/2-3	A. Loarte Change of wall material from beryllium to tungsten in the new ITER Baseline: Physics basis, implications for research plan and wall designs for its operational phases	ITER
11:20	TEC/2-2	J. Reich ITER Core Machine Assembly Progress	ITER
11:40	TEC/2-5	C.H. Noh Recovery of ITER sector modules from critical issues	ITER
12:00	TEC/2-4	D. Marcuzzi Achievement at the ITER Neutral Beam Test Facility and prospects for the R& D activities within the ITER research plan	Italy

TH/1 & EX/1

Exhaust

Chairperson: Fulvio Militello (UK)

(14:00-15:40)

14:00	TH/1-1	E. Kaveeva First SOLPS-ITER wide grid simulations of the ITER burning plasma scrape-off layer	Russia
14:20	EX/1-1	K. Verhaegh The physics basis for implementing Alternative Divertor Configurations on reactors	UK
14:40	TH/1-2	H. Bufferand Hierarchy of turbulent transport models with the SOLEDGE3X code	France

15:00	TH/1-3	W. Zholobenko Validated, global edge-SOL turbulence simulations in various ELM-free regimes	Germany
15:20	Ex/1-2	E. Tonello Modelling divertor solutions for power exhaust: in-depth experimental validation in TCV	Switzerland

EX/2 & TH/2

Core-edge Integration, Pedestal

Chairperson: Jay Hyun Kim (Republic of Korea)

(16:10-17:50)

16:10	Ex/2-1	C. Giroud High performance ELM-free semi-detached scenario sustained at high-current in JET DTE3	UK
16:30	EX/2-2	M. Dunne The physics of ELM-free regimes in EUROfusion tokamaks	Germany
16:50	EX/2-3	S. Liu First edge-localized mode suppression with lower hybrid waves on the EAST tokamak	China
17:10	TH/2-1	J.K. Park New understanding of resonant layer response via extended drift MHD	Korea
17:30	TH/2-2	M. Schneider Integrated Modelling activities in support of the ITER re-baseline	France

Thursday 16 October 2025

EX/3

Long Pulse

Chairperson: Masaki Osakabe (Japan)

(08:30-10:10)

08:30	EX/3-1	S. Bannmann Attaining Tokamak level performance through plasma density profile shaping at Wendelstein 7-X	Germany
08:50	EX/3-2	R. Dumont WEST Long-pulse achievements in support of next-step fusion devices	France
09:10	EX/3-3	G. Xu Long pulse ELM-FREE H-Mode regime with feedback-controlled detachment under boronized metal wall in EAST	China
09:30	EX/3-4	J. Huang Development of steady-state operation scenarios with full tungsten limiter/divertor in ITER-relevant configuration on EAST	China
09:50	EX/3-5	H. Kim Development of high-performance long-pulse discharge in KSTAR	Korea

IFE/1

Inertial Fusion Energy

Chairperson: Sylvie Jacquemot (France)

(10:40-12:20)

10:40	IFE/1-1	Y. Arikawa High gain fusion burning in inertial confinement fusion plasma	Japan
11:00	IFE/1-2	S. Le Pape Foams as a Pathway to Energy from Inertial Fusion (FoPIFE): overview of recent results	France
11:20	IFE/1-3	N. Borisenko Targets developed in the 21st century at the P.N. Lebedev Physical Institute of RAS to study the extreme matter physics using high-power laser facilities	Russia
11:40	IFE/1-4	F. Wu Prediction of the implosion dynamics via AI enhanced simulations for the Double-Cone Ignition Scheme	China

12:00	IFE/1-5	J. Ogino Development of innovative repeatable power laser for laser fusion	Japan
-------	---------	--	-------

TH/3 & EX/4

Disruption, RE, Stellarator

Chairperson: Murakami Sadayoshi (Japan)

(14:00-15:40)

14:00	TH/3-1	D. Hu JOIREK simulation of injection assimilation and radiation asymmetry during ITER H-mode dual SPIs	China
14:20	TH/3-2	H. Bergstrom Hybrid kinetic-MHD studies of runaway electron beam termination events	Germany
14:40	TH/3-3	Y. Lee Modelling of mildly relativistic runaway electrons-development of reduced-kinetic model and validation in KSTAR ohmic startup	Korea
15:00	TH/3-4a	C. Zhu A novel method to optimize omnigenity like quasisymmetry for stellarators	China
	TH/3-4b	J.L. Velasco Garasa Piecewise omnigenous fields: a radically new family of optimized magnetic fields for stellarator reactors	Spain
15:20	EX/4-1	C. Killer Drift flows impact island divertor operation in Wendelstein 7-X	Germany

TEC/2 & EX/5

PFC and Materials

Chairperson: Gianfranco Federici (Germany)

(16:10-17:50)

16:10	EX/5-1	D. Matveev Analysis of fuel retention and recovery in JET with BE-W wall	Germany
16:30	TEC/2-1	V. Lamaison WEST operation - reliability and availability of a long pulse fusion tokamak	France
16:50	TEC/2-2	M. Richou Actively cooled plasma facing components design for W7-X and JT-60SA in support of the ITER divertor	France
17:10	TEC/2-3a	G.M. Polli The Divertor Tokamak Test Facility: Machine design construction and commissioning	Italy
	TEC/2-3b	S. Roccella Design and qualification activity of the first divertor of the DIVERTOR TOKAMAK TEST FACILITY	Italy
17:30	TEC/2-4	J. Du Performance evaluation of tungsten fiber-reinforced tungsten composites developed at SWIP for application in nuclear fusion reactors	China

Friday 17 October 2025

TH/4

Next Generation Modelling

Chairperson: Eisung Yoon (Korea)

(08:30-10:10)

08:30	TH/4-1	N. Aiba H-mode operation scenarios in JT-60SA initial research phase predicted by integrated core-pedestal-SOL/divertor simulation	Japan
08:50	TH/4-2	H. Meyer UK STEP towards a fusion power plant plasma	UK

09:10	TH/4-3	D. Kennedy A TALE OF TWO (VISCO)CITIES Electromagnetic Turbulence and Transport Bifurcations: Implications for Next-Generation Fusion Power Plants	UK
09:30	TH/4-4	R. Zhao Global dispersion and nonlinear dynamics in plasmas modeled for JT-60U strongly reversed magnetic shear configuration exhibiting a signature of ITBS from L-Mode characteristics	Japan
09:50	TH/4-5	A. Jarvinen Gyrokinetic simulations of a low recycling scrape-off layer without a lithium target	USA

**TEC/3
EX/6
&
TH/5**

Operation Control

Chairperson: Michael Porton (UK)

(08:30-10:10)

08:30	TEC/3-1	Y. Morishita Development of a data assimilation system ASTI toward DIGITAL TWIN control of fusion plasma	Japan
08:50	TEC/3-2	A. Krasilnikov TRT plasma control complexes conceptual design on the base of the ITER fusion technology development	Russia
09:10	TEC/3-3	S. Jachmich ITER disruption mitigation system design and application strategy	ITER
09:30	EX/6-1	L. Zeng Thermal quench dynamics and heat flux distribution during massive-impurity-injection triggered disruption in EAST	China
09:50	TH/5-1	C. Liu Analysis and simulation of effective runaway electron mitigation using a passive coil in J-TEXT tokamak	China

**EX/7
&
TH/6****Scenarios and Control**

Chairperson: Wulyu. Zhong (China)

(10:40-12:20)

10:40	EX/7-1	T. Wakatsuki Development of Low Inductive Electric Field Plasma Start-up in JT-60SA	Japan
11:00	TH/6-1	H. Kim Multi-machine validation of plasma initiation modelling and prospects for future devices	Korea
11:20	EX/7-2	S. Inoue Development of equilibrium control simulator and experimental validation of advanced ISO-Flux equilibrium control during the first operational phase of JT-60SA	Japan
11:40	EX/7-3	T. Kinoshita Direct control of turbulence for improved plasma confinement	Japan
12:00	EX/7-4	M. Baruzzo Plasma control experiments in JET deuterium-tritium plasmas	Italy

**TH/7
&
EX/8****Burning Plasma**

Chairperson: Alexander Melnikov (Russia)

(10:40-12:20)

10:40	TH/7-1	J. Wang Comprehensive Simulations of Bursting and Non-Bursting Alfvén Waves in ICRF Heated Tokamak Plasmas	Japan
11:00	TH/7-2	F. Zonca Theory and simulation of phase space transport in burning plasma	Italy
11:20	EX/8-1	S. Sharapov Fusion alpha-particle -driven Alfvén eigenmodes in JET DT plasmas: experiments and theory	UK
11:40	TH/7-3	A. Könies Turbulence, zonal flows, and global modes in burning plasmas: code development and simulations	Germany

12:00	EX/8-2	G. Xiao Advancing Tritium Fueling for DT Fusion in HL-3: Innovations in SMBI Techniques and Physics-Based Tritium Fueling Strategies	China
-------	--------	--	-------

TEC/4 Fusion Nuclear Technology

Chairperson: Moises Weber (Spain)

(14:00-15:40)

14:00	TEC/4-1	R. Villari Neutronics for ITER nuclear phase: insights and lessons learnt from JET DT operation	Italy
14:20	TEC/4-2	E. Bernard Anticipating tritium impact and transfer in fission and fusion power plants	France
14:40	TEC/4-3	I. Palermo Overview of the DCLL breeding blanket for HELIAS 5-B and further steps towards a novel QI device	Spain
15:00	TEC/4-4	Y.H. Park Experimental study on tritium release from Li ₂ TiO ₃ pebbles as tritium breeder through international collaboration between KOREA and CHINA	Korea
15:20	TEC/4-5	T. Akagi Accomplishment of high duty cycle beam commissioning of Linear IFMIF Prototype Accelerator (LIPAc) at 5 MeV, 125 mA D ⁺	Japan

TH/8 & EX/9

Tungsten

Chairperson: Marco Wischmeier (Germany)

(16:10-17:30)

16:10	TH/8-1	D. Fajardo Theory-based integrated modelling of tungsten transport: validation in present-day tokamaks and predictions for ITER	Germany
16:30	EX/9-1	Y. Corre Testing tungsten plasma facing components in WEST and AUG tokamaks: Lessons for ITER	France
16:50	TH/8-2	H. Kumpulainen Simulation of tungsten erosion and edge-to-core transport in neon-seeded JET plasmas	Germany
17:10	EX/9-2	J. Hobirk Tungsten limiter Start-up experiments in different boronization states in support of ITER	Germany

TEC/5 & IAC/1

Enabling Technologies

Chairperson: Ge Zhuang (China)

(16:10-17:30)

16:10	TEC/5-1	R. Skilton Overview of recent results in research tackling remote maintenance challenges of future fusion energy devices	UK
16:30	TEC/5-2	K. Tsuchiya Performance of JT-60SA superconducting magnet operation in integrated commissioning test	Japan
16:50	TEC/5-3a	T. Shinya First performance test of multi-frequency gyrotron for ITER and fusion devices	Japan
	TEC/5-3b	H. Yamazaki Results of electron cyclotron heating and current drive system operation in the integrated commissioning phase on JT-60SA	Japan

17:10	IAC/1-1	Y. Xu Construction Progress of Chinese First Quasi-axisymmetric Stellarator (CFQS) and Preliminary Results in the CFQS-Test Device	China
-------	---------	--	-------

Saturday 18 October 2025

**EX/10
&
PD/1**

Transport Barriers, Post-Deadline

Chairperson: Emmanuele Tistrone (France)

(08:30-10:10)

08:30	EX/10-1	C. Maggi Core and edge transport of scenario with internal transport barrier in tritium and deuterium-tritium plasmas in JET with BE/W wall	UK
08:50	EX/10-2	Y. Jeon Development of high poloidal beta scenario for long-pulse operation in collaboration between DIII-D and KSTAR	Korea
09:10	EX/10-3	L. Frassinetti Peeling limited pedestals in JET, MAST-U and TCV: effect of density and isotope mass in deuterium and tritium-rich plasma on pedestal structure and stability and validation of pedestal predictions for ITER.	Sweden
09:30	PD/1-1	K. Ida Observation of core ion energy increase caused by the Landau damping of MHD wave in the periphery of LHD plasma	Japan
09:50	PD/1-2	T. Lunt First campaign with alternative divertor configurations in ASDEX Upgrade	Germany

OV/5

Innovative Facilities and Technologies

Chairperson: Hidenobu Takenaga (Japan)

(10:40-12:45)

10:40	OV/5-1	R. Lawless Overview of UKAEA's integrated fusion technology programmes, emphasising a digital first strategy	UK
11:05	OV/5-2a	A. Ibarra Overview of the DONES Experimental Programme	Spain
	OV/5-2b	K. Hasegawa Overview of achievements and outlook of the IFMIF/EVEDA project	Japan
11:30	OV/5-3	O. Asunta Overview of ST40 results and future: expanding the physics basis of high-field spherical tokamaks	UK
11:55	OV/5-4	N. Bakharev Recent advances at the Globus-M2 tokamak	Russia
12:20	OV/5-5	Y. Sentoku Strategic plan to demonstrate heatwave-driven laser fusion with fast ignition scheme	Japan

PWF/1

Pathways to Fusion

Chairperson: Takashi Inoue (Japan)

(14:00-15:40)

14:00	PWF/1-1	F. Warmer Towards a Stellarator Fusion Reactor: Achievements of the European Stellarator Program	Germany
14:20	PWF/1-2	H. Wilson STEP: Driving a pathway to accelerated fusion delivery	UK
14:40	PWF/1-3	N. Lopez Tokamak Energy's high temperature superconducting magnet spherical tokamak fusion pilot plant concept	UK
15:00	PWF/1-4	J. Kwon Establishment and Progress of Korean Fusion Reactor Design Activities: A Coordinated National Approach	Korea
15:20	PWF/1-5	H. Takenaga Fusion research and development strategy for JA DEMO investigated in QST	Japan

C/1**Closing**

Chairperson: Elisabeth Wolfrum (Germany)

(15:40-17:00)

15:40	C/1-1	Takashi Inoue & Elisabeth Wolfrum Announcement of Poster Awards	
15:55	C/1-2	TBC NF Awards 2024-2025 Announcement and Speeches	
16:15	C/1-3	Yeongkook Oh Announcement of FEC 2027 Venue	KFE
16:35	C/1-4	Mikhail Chudakov IAEA Closing Address	IAEA
16:45	C/1-5	Host Country Representative Conference Closing	China

Overview Orals

3257	Olaf Grulke Overview of Wendelstein 7-X high-performance operation	Germany
2806	Kenji Tanaka RECENT ADVANCES IN PLASMA CONTROL AND PHYSICS RESEARCH IN THE LARGE HELICAL DEVICE	Japan
2930	Frank Jenko TOWARDS DIGITAL TWINS OF FUSION SYSTEMS	Germany
2808	James Harrison OVERVIEW OF THE MAST UPGRADE PHYSICS PROGRAMME: TESTING NOVEL CONCEPTS AT LOW ASPECT RATIO TO INFORM FUTURE DEVICES	United Kingdom
3065	Rachel Lawless OVERVIEW OF UKAEA'S INTEGRATED FUSION TECHNOLOGY PROGRAMMES, EMPHASISING A DIGITAL FIRST STRATEGY	United Kingdom
3337	Otto Asunta OVERVIEW OF ST40 RESULTS AND FUTURE: EXPANDING THE PHYSICS BASIS OF HIGH-FIELD SPHERICAL TOKAMAKS	United Kingdom
2955	Jiangang Li Overview of CRAFT project progress	China
2866	Nikolai Bakharev Recent advances at the Globus-M2 tokamak	Russia
2903	Pietro Barabaschi PROGRESS OF ITER AND ITS VALUE FOR FUSION	ITER Organization
2828	Yasuhiko Sentoku Strategic plan to demonstrate heatwave-driven laser fusion with fast ignition scheme	Japan
2850	Marco Wischmeier Results from the last DD and DT JET campaigns in the framework of the EUROfusion Tokamak Exploitation activity	Italy
3326	Xianzu Gong OVERVIEW OF RECENT EXPERIMENTAL RESULTS ON EAST IN SUPPORT OF ITER NEW RESEARCH PLAN	China
3183	Jerome Bucalossi OVERVIEW OF WEST CONTRIBUTIONS TO THE NEW ITER BASELINE AND FUSION POWER PLANTS	France
2733	Jerónimo Garcia FIRST JT-60SA PLASMA OPERATION AND PLANS IN VIEW OF ITER AND DEMO	France
3003	YongUn Nam OVERVIEW OF THE KSTAR EXPERIMENTS AND FUTURE PLAN	Korea, Republic of
3052	Thomas Pfisterich Overview of ASDEX Upgrade results	Germany

- 3258 **Wulyu Zhong** China
HL-3 RESEARCH TOWARDS HIGH-PERFORMANCE
PLASMA AND POWER EXHAUST SOLUTION
- 2855 **Christian Theiler** Switzerland
Progress and innovations in the TCV tokamak research pro-
gramme

Overview Posters

3380	Jiangang Li [OV POSTER TWIN] Overview of CRAFT project progress	China
3381	Pietro barabaschi [OV POSTER TWIN] PROGRESS OF ITER AND ITS VALUE FOR FUSION	ITER Organization
3385	James Harrison [OV POSTER TWIN] OVERVIEW OF THE MAST UPGRADE PHYSICS PROGRAMME: TESTING NOVEL CONCEPTS AT LOW ASPECT RATIO TO INFORM FUTURE DEVICES	United Kingdom
3392	YongUn Nam [OV POSTER TWIN] OVERVIEW OF THE KSTAR EXPERIMENTS AND FUTURE PLAN	Korea, Republic of
3394	Rachel Lawless [OV POSTER TWIN] OVERVIEW OF UKAEA'S INTEGRATED FUSION TECHNOLOGY PROGRAMMES, EMPHASISING A DIGITAL FIRST STRATEGY	United Kingdom
3400	Xianzu Gong [OV POSTER TWIN] OVERVIEW OF RECENT EXPERIMENTAL RESULTS ON EAST IN SUPPORT OF ITER NEW RESEARCH PLAN	China
3384	Kenji Tanaka [OV POSTER TWIN] RECENT ADVANCES IN PLASMA CONTROL AND PHYSICS RESEARCH IN THE LARGE HELICAL DEVICE	Japan
3387	Marco Wischmeier [OV POSTER TWIN] Results from the last DD and DT JET campaigns in the framework of the EUROfusion Tokamak Exploitation activity	Italy
3386	Yasuhiko Sentoku [OV POSTER TWIN] Strategic plan to demonstrate heatwave-driven laser fusion with fast ignition scheme	Japan
3388	Christian Theiler [OV POSTER TWIN] Progress and innovations in the TCV tokamak research programme	Switzerland
3389	Nikolai Bakharev [OV POSTER TWIN] Recent advances at the Globus-M2 tokamak	Russia
3390	Frank Jenko [OV POSTER TWIN] TOWARDS DIGITAL TWINS OF FUSION SYSTEMS	Germany
3391	Kazuo HASEGAWA [OV POSTER TWIN] OVERVIEW OF ACHIEVEMENTS AND OUTLOOK OF THE IFMIF/EVEDA PROJECT	Japan
3393	Thomas Pütterich [OV POSTER TWIN] Overview of ASDEX Upgrade results	Germany

3395	Angel Ibarra [OV POSTER TWIN] Overview of the DONES Experimental Programme	Spain
3397	Jerome Bucalossi [OV POSTER TWIN] OVERVIEW OF WEST CONTRIBUTIONS TO THE NEW ITER BASELINE AND FUSION POWER PLANTS	France
3399	Olaf Grulke [OV POSTER TWIN] Overview of Wendelstein 7-X high-performance operation	Germany
3401	Otto Asunta [OV POSTER TWIN] OVERVIEW OF ST40 RESULTS AND FUTURE: EXPANDING THE PHYSICS BASIS OF HIGH-FIELD SPHERICAL TOKAMAKS	United Kingdom
3403	Wulyu Zhong [OV POSTER TWIN] HL-3 RESEARCH TOWARDS HIGH-PERFORMANCE PLASMA AND POWER EXHAUST SOLUTION	China
2665	Baurzhan Chektybayev AN OVERVIEW OF THE FIRST EXPERIMENTAL RESULTS WITH DIVERTOR CONFIGURATION DISCHARGES IN THE KTM TOKAMAK	Kazakhstan
2679	Matthias Hoelzl JOEREK contributions to the predictive understanding of transient phenomena in future tokamaks and stellarators	Germany
2790	Gianmario Polli The Divertor Tokamak Test project: progress towards the initial operation	Italy
2813	Songke Wang STEP Exhaust System “Architecture and Technology Development overview	United Kingdom
2902	Jose Manuel Garcia-Regana Transport in high-performance plasmas of the TJ-II stellarator: From first-principles simulations to experimental validation	Spain
2999	Yuejiang Shi Overview of EXL-50U Experiments: Addressing Key Physics Issues for Future Spherical Torus Reactors	China
3062	David Jimenez Rey Early Neutron Source IFMIF-DONES: Status and validation activities phase	Spain
3101	Ge ZHUANG Progress of Research on the KTX Reversed Field Pinch	China
3102	Masatoshi Yagi Overview of R&D activities within IFERC in support of fusion development in the context of the Broader Approach Agreement Phase II	Japan
3111	Bing Liu Progress of Proton-Boron Research for Fusion Energy in China	China

3142	Natalia Kirneva T-15MD: MISSION AND RECENT EXPERIMENTAL RESULTS	Russia
3200	Xuesong Ma Structural Design of the Negative Triangularity Spherical Tokamak (NTST)	China
3321	Nengchao Wang ADVANCES IN PHYSICS AND APPLICATIONS OF 3D MAGNETIC PERTURBATIONS ON THE J-TEXT TOKAMAK	China
3323	Piero Martin THE DIVERTOR TOKAMAK TEST FACILITY RESEARCH PLAN	Italy
3327	Yi Tan RECENT PROGRESS ON THE SUNIST-2 SPHERICAL TOKAMAK	China
3346	GERVASONI Gervasoni CONTROLLED NUCLEAR FUSION FOR THE ENERGY TRANSITION, HEALTH, AND INDUSTRY	Argentina
3383	Jeronimo Garcia [OV POSTER TWIN] FIRST JT-60SA PLASMA OPERATION AND PLANS IN VIEW OF ITER AND DEMO	France

Regular Orals

2678	Di Hu JOREK simulation of injection assimilation and radiation asymmetry during ITER H-mode dual SPIs	China
2689	Takuma Wakatsuki Development of Low Inductive Electric Field Plasma Start-up in JT-60SA	Japan
2693	Hibiki Yamazaki RESULTS OF ELECTRON CYCLOTRON HEATING AND CURRENT DRIVE SYSTEM OPERATION IN THE INTEGRATED COMMISSIONING PHASE ON JT-60SA	Japan
2700	JIALEI Wang Comprehensive Simulations of Bursting and Non-Bursting Alfvén Waves in ICRF Heated Tokamak Plasmas	Japan
2703	Hibiki Yamazaki First performance test of multi-frequency gyrotron for ITER and fusion devices	Japan
2709	Fuyuan Wu Prediction of the implosion dynamics via AI enhanced simulations for the Double-Cone Ignition Scheme	China
2718	Dmitry Matveev ANALYSIS OF FUEL RETENTION AND RECOVERY IN JET WITH BE-W WALL	Germany
2721	Hannes Bergström Hybrid kinetic-MHD studies of runaway electron beam termination events	Germany
2727	Katsuhiko TSUCHIYA PERFORMANCE OF JT-60SA SUPERCONDUCTING MAGNET OPERATION IN INTEGRATED COMMISSIONING TEST	Japan
2739	Yuya Morishita DEVELOPMENT OF DATA ASSIMILATION SYSTEM ASTI TOWARD DIGITAL TWIN CONTROL OF FUSION PLASMA	Japan
2744	Hugo Bufferand Hierarchy of turbulent transport models with the SOLEDGE3X code	France
2749	Elizaveta Kaveeva FIRST SOLPS-ITER WIDE GRID SIMULATIONS OF THE ITER BURNING PLASMA SCRAPE-OFF LAYER	Russia
2754	Hyun-Tae Kim MULTI-MACHINE VALIDATION OF PLASMA INITIATION MODELLING AND PROSPECTS FOR FUTURE DEVICES	United Kingdom
2758	Gian Mario Polli THE DIVERTOR TOKAMAK TEST FACILITY: MACHINE DESIGN, CONSTRUCTION AND COMMISSIONING	Italy
2761	Henri Kumpulainen	Germany

2766	Simulation of tungsten erosion and edge-to-core transport in neon-seeded JET plasmas Alberto Loarte CHANGE OF WALL MATERIAL FROM BERYLLIUM TO TUNGSTEN IN THE NEW ITER BASELINE: PHYSICS BASIS, IMPLICATIONS FOR RESEARCH PLAN AND WALL DESIGNS FOR ITS OPERATIONAL PHASES	France
2784	Toshiki Kinoshita DIRECT CONTROL OF TURBULENCE FOR IMPROVED PLASMA CONFINEMENT	Japan
2785	Jumpei Ogino DEVELOPMENT OF INNOVATIVE REPEATABLE POWER LASER FOR LASER FUSION	Japan
2842	Elena Tonello Modelling divertor solutions for power exhaust: in-depth experimental validation in TCV	Switzerland
2845	Lorenzo Frassinetti Peeling limited pedestals in JET, MAST-U and TCV: effect of density and isotope mass in deuterium and tritium-rich plasma on pedestal structure and stability and validation of pedestal predictions for ITER.	Sweden
2847	Stefan Jachmich ITER DISRUPTION MITIGATION SYSTEM DESIGN AND APPLICATION STRATEGY	ITER Organization
2857	Daniel Fajardo Theory-based integrated modelling of tungsten transport: validation in present-day tokamaks and predictions for ITER	Germany
2868	Mireille SCHNEIDER Integrated Modelling activities in support of the ITER re-baseline	France
2875	Chang Hyun Noh RECOVERY OF ITER SECTOR MODULES FROM CRITICAL ISSUES	ITER Organization
2887	Yasunobu Arikawa HIGH GAIN FUSION BURNING IN INERTIAL CONFINEMENT FUSION PLASMA	Japan
2890	Nobuyuki AIBA H-mode operation scenarios in JT-60SA initial research phase predicted by integrated core-pedestal-SOL/divertor simulation	Japan
2898	Shizuo Inoue DEVELOPMENT OF EQUILIBRIUM CONTROL SIMULATOR AND EXPERIMENTAL VALIDATION OF ADVANCED ISO-FLUX EQUILIBRIUM CONTROL DURING THE FIRST OPERATIONAL PHASE OF JT-60SA	Japan
2904	Remi Dumont WEST LONG-PULSE ACHIEVEMENTS IN SUPPORT OF NEXT-STEP FUSION DEVICES	France

2911	IOLE PALERMO OVERVIEW OF THE DCLL BREEDING BLANKET FOR HE- LIAS 5-B AND FURTHER STEPS TOWARDS A NOVEL QI DE- VICE	Spain
2918	Costanza Maggi CORE AND EDGE TRANSPORT OF SCENARIO WITH INTERNAL TRANSPORT BARRIER IN TRITIUM AND DEUTERIUM-TRITIUM PLASMAS IN JET WITH BE/W WALL	United Kingdom
2919	Axel Könies Turbulence, zonal flows, and global modes in burning plasmas: code development and simulations	Germany
2922	Jose Luis Velasco Garasa Piecewise omnigenous fields: a radically new family of opti- mized magnetic fields for stellarator reactors	Spain
2924	Carine Giroud High performance ELM-free semi-detached scenario sustained at high-current in JET DTE3	United Kingdom
2927	Valerie LAMAISSON WEST OPERATION “RELIABILITY AND AVAILABILITY OF A LONG PULSE FUSION TOKAMAK	France
2934	Elodie Bernard ANTICIPATING TRITIUM IMPACT AND TRANSFER IN FIS- SION AND FUSION POWERPLANTS	France
2937	Rosaria Villari NEUTRONICS FOR ITER NUCLEAR PHASE: INSIGHTS AND LESSONS LEARNT FROM JET DT OPERATION	Italy
2938	yann corre TESTING TUNGSTEN PLASMA FACING COMPONENTS IN WEST AND AUG TOKAMAKS : LESSONS FOR ITER	France
2939	Selanna Roccella Design and qualification activity of the first divertor of the DI- VERTOR TOKAMAK TEST FACILITY	Italy
2940	Hendrik Meyer UK STEP TOWARDS A FUSION POWER PLANT PLASMA	United Kingdom
2956	Kazuo HASEGAWA OVERVIEW OF ACHIEVEMENTS AND OUTLOOK OF THE IFMIF/EVEDA PROJECT	Japan
2961	HYUNSEOK KIM DEVELOPMENT OF HIGH-PERFORMANCE LONG-PULSE DISCHARGE IN KSTAR	Korea, Republic of
2963	Yi-Hyun PARK EXPERIMENTAL STUDY ON TRITIUM RELEASE FROM Li ₂ TiO ₃ PEBBLES AS TRITIUM BREEDER THROUGH INTERNATIONAL COLLABORATION BETWEEN KOREA AND CHINA	Korea, Republic of
2965	Youngmu Jeon	Korea, Republic of

	DEVELOPMENT OF HIGH POLOIDAL BETA SCENARIO FOR LONG-PULSE OPERATION IN COLLABORATION BETWEEN DIII-D AND KSTAR	
2971	Long Zeng Thermal quench dynamics and heat flux distribution during massive-impurity-injection triggered disruption in EAST	China
2988	Yeongsun Lee MODELLING OF MILDLY RELATIVISTIC RUNAWAY ELECTRONS –DEVELOPMENT OF REDUCED-KINETIC MODEL AND VALIDATION IN KSTAR OHMIC STARTUP	Korea, Republic of
2992	Tomoya Akagi Accomplishment of high duty cycle beam commissioning of Linear IFMIF Prototype Accelerator (LIPAc) at 5 MeV, 125 mA D+	Japan
3015	Anatoly Krasilnikov TRT PLASMA CONTROL COMPLEXES CONCEPTUAL DESIGN ON THE BASE OF THE ITER FUSION TECHNOLOGY DEVELOPMENT	Russia
3020	Diego Marcuzzi ACHIEVEMENT AT THE ITER NEUTRAL BEAM TEST FACILITY AND PROSPECTS FOR THE R&D ACTIVITIES WITHIN THE ITER RESEARCH PLAN	Italy
3023	Marianne Richou ACTIVELY COOLED PLASMA FACING COMPONENTS DESIGN FOR W7-X AND JT-60SA IN SUPPORT OF THE ITER DIVERTOR	France
3028	Fulvio Zonca THEORY AND SIMULATION OF PHASE SPACE TRANSPORT IN BURNING PLASMAS	Italy
3038	Matteo Baruzzo PLASMA CONTROL EXPERIMENTS IN JET DEUTERIUM-TRITIUM PLASMAS	Italy
3053	Hidenobu Takenaga Fusion research and development strategy for JA DEMO investigated in QST	Japan
3055	Howard Wilson STEP: Driving a pathway to accelerated fusion delivery	United Kingdom
3056	Sergei Sharapov FUSION ALPHA-PARTICLE-DRIVEN ALFVEN EIGEN-MODES IN JET DT PLASMAS: EXPERIMENTS AND THEORY	United Kingdom
3066	sebastien Le Pape Foams as a Pathway to Energy from Inertial Fusion (FoPIFE): overview of recent results	France
3069	Angel Ibarra Overview of the DONES Experimental Programme	Spain
3074	Daniel Kennedy	United Kingdom

	A TALE OF TWO (VISCO)CITIES Electromagnetic Turbulence and Transport Bifurcations: Implications for Next- Generation Fusion Power Plants	
3077	Aaro Järvinen GYROKINETIC SIMULATIONS OF A LOW RECYCLING SCRAPE-OFF LAYER WITHOUT A LITHIUM TARGET	United States
3085	Sebastian Bannmann Attaining Tokamak level performance through plasma density profile shaping at Wendelstein 7-X	Germany
3088	Kevin Verhaegh The physics basis for implementing Alternative Divertor Configurations on reactors	Netherlands
3095	Shaocheng Liu FIRST EDGE-LOCALIZED MODE SUPPRESSION WITH LOWER HYBRID WAVES ON THE EAST TOKAMAK	China
3103	Jong Kyu Park NEW UNDERSTANDING OF RESONANT LAYER RESPONSE VIA EXTENDED DRIFT MHD	Korea, Republic of
3116	Guosheng Xu LONG-PULSE ELM-FREE H-MODE REGIME WITH FEEDBACK-CONTROLLED DETACHMENT UNDER BORONIZED METAL WALL IN EAST	China
3117	Guoliang Xiao Advancing Tritium Fueling for DT Fusion in HL-3: Innovations in SMBI Techniques and Physics-Based Tritium Fueling Strategies	China
3124	Rui Zhao GLOBAL DISPERSION AND NONLINEAR DYNAMICS IN PLASMAS MODELED FOR JT-60U STRONGLY REVERSED MAGNETIC SHEAR CONFIGURATION EXHIBITING A SIGNATURE OF ITBS FROM L-MODE CHARACTERISTICS	Japan
3128	Felix Warmer Towards a Stellarator Fusion Reactor: Achievements of the European Stellarator Program	Germany
3144	Siwoo Yoon THE 2024 NEW BASELINE ITER RESEARCH PLAN	India
3154	Robert Skilton OVERVIEW OF RECENT RESULTS IN RESEARCH TACKLING REMOTE MAINTENANCE CHALLENGES OF FUTURE FUSION ENERGY DEVICES	United Kingdom
3182	Carsten Killer Drift flows impact island divertor operation in Wendelstein 7-X	Germany
3215	Juan Huang DEVELOPMENT OF STEADY-STATE OPERATION SCENARIOS WITH FULL TUNGSTEN LIMITER/DIVERTOR IN ITER-RELEVANT CONFIGURATION ON EAST	China
3241	Wladimir Zholobenko	Germany

	Validated, global edge-SOL turbulence simulations in various ELM-free regimes	
3249	Yuhong Xu Construction Progress of Chinese First Quasi-axisymmetric Stellarator (CFQS) and Preliminary Results in the CFQS-Test Device	China
3281	Chang Liu ANALYSIS AND SIMULATION OF EFFECTIVE RUNAWAY ELECTRON MITIGATION USING A PASSIVE COIL IN J-TEXT TOKAMAK	China
3308	Jörg Hobirk Tungsten limiter Start-up experiments in different boronization states in support of ITER	Germany
3330	Caixiang Zhu A novel method to optimize omnigenity like quasisymmetry for stellarators	China
3341	Nicolas Lopez Tokamak Energy's high temperature superconducting magnet spherical tokamak fusion pilot plant concept	United Kingdom
3354	Michael Dunne The physics of ELM-free regimes in EUROfusion tokamaks	Germany
3359	Nataliya Borisenko TARGETS DEVELOPED IN THE 21ST CENTURY AT THE P.N. LEBEDEV PHYSICAL INSTITUTE OF RAS TO STUDY THE EXTREME MATTER PHYSICS USING HIGH-POWER LASER FACILITIES	Russia
3360	Jae-Min Kwon Establishment and Progress of Korean Fusion Reactor Design Activities: A Coordinated National Approach	Korea, Republic of
3364	Juan Du PERFORMANCE EVALUATION OF TUNGSTEN FIBER-REINFORCED TUNGSTEN COMPOSITES DEVELOPED AT SWIP FOR APPLICATION IN NUCLEAR FUSION REACTORS	China
3368	Jens Reich ITER Core Machine Assembly Progress	ITER Organization
3522	Katsumi Ida OBSERVATION OF CORE ION ENERGY INCREASE CAUSED BY THE LANDAU DAMPING OF MHD WAVE IN THE PERIPHERY OF LHD PLASMA	Japan
3530	Tilmann Lunt FIRST CAMPAIGN WITH ALTERNATIVE DIVERTOR CONFIGURATIONS IN ASDEX UPGRADE	Germany

Regular Posters

2619	Ondrej Kudlacek SYSTEM ARCHITECTURE FOR ACTUATOR MANAGEMENT IN ITER PCS	Germany
2620	Alexei Zhurba Fusion Twin Platform: An Innovative Tool for Fusion Research and Education	Luxembourg
2621	Alexey Zhirkin Neutron-Physical Characteristics of Blanket of Hybrid Fusion Neutron Source based on Solution of Thorium Nitrate and Minor Actinides in Heavy Water	Russia
2623	Wolfgang Treutterer Performance Optimisation of Tokamak Operation in ASDEX Upgrade Through Novel Feedback Control Capabilities	Germany
2626	Jose Martin-Solis Runaway electron avalanche and energy deposition during scraping-off of vertically unstable disruption generated runaway beams	Spain
2628	Andrew Rothstein ACTIVE TEARING MODE AVOIDANCE WITH MACHINE LEARNING CONTROLLERS	United States
2633	Ivan Kodeli USE OF SHIELDING BENCHMARK EXPERIMENT DATABASE (SINBAD) TO IDENTIFY NUCLEAR DATA STATUS AND GUIDE FUTURE EXPERIMENTAL ACTIVITIES	United Kingdom
2634	Daihong Zhang Impurity Accumulation and Radiation Dynamics in advanced Scenarios in W7-X	Germany
2635	Hongxuan Zhu Global eigenmode structure of linear drift-wave instabilities on flux surfaces in stellarators	United States
2639	sergey ananyev STATUS OF ??? DEVELOPMENT OF A TRITIUM FUEL CYCLE FOR LONG-TERM TOKAMAK OPERATION	Russia
2640	Henry Strauss ELIMINATING TOKAMAK MAJOR DISRUPTIONS WITH FEEDBACK	United States
2645	Georgy Subbotin Advanced Magnetic Plasma Control Enabled by Reinforcement Learning	Luxembourg
2653	Maxim Nurgaliev Reconstructing the Plasma Boundary with a Reduced Set of Diagnostics	Luxembourg
2657	Yang Li	China

	NEOCLASSICAL THEORY ON LOW FREQUENCY DRIFT ALFVÉN WAVES	
2660	Mingyun Cao How the tail wags the dog': physics of edge-core coupling by inward turbulence propagation	United States
2662	Hong Lei CSMC Power Supply System Completes DC 48kA Steady State Output Experiment	China
2664	Mikhail Shlenskii The benchmark database of experiments, nuclear, and technological data for hybrid fusion systems with various types of blankets	Russia
2668	Yu Gao OBSERVATION AND CONTROL OF 3D HEAT FLUX ON THE PLASMA FACING COMPONENT IN WENDELSTEIN 7-X	Germany
2671	Andrey Lvovskiy Enabling Advanced Plasma Shapes on MAST-U Spherical Tokamak	United States
2672	Ilya Senichenkov Modelling of H-mode EAST edge plasma with impurity seeding by SOLPS-ITER 3.2.0 on wide grid	Russia
2673	Francesco Orsitto PHYSICS BASIS OF DISCREPANCIES BETWEEN TEMPERATURE MEASUREMENTS BY ECE AND THOMSON SCATTERING IN HIGH PERFORMANCE PLASMAS ON JET, EAST AND DIII-D	Italy
2677	Aleksandr Shevelev USE OF NUCLEAR SPECTROMETRY TO MONITOR FUSION RATE, FAST PARTICLES AND RUNAWAY ELECTRONS IN TOKAMAK PLASMAS	Russia
2680	Elena Koresheva 10-HZ-INJECTION AT A LASER FOCUS OF TARGETS ACCELERATED INTO SPRING-HTSC-MAGLEV SYSTEM	Russia
2681	Anna Ponomarenko THE STUDY OF ALFVÉN EIGENMODES ON THE SPHERICAL TOKAMAK GLOBUS-M2 USING DOPPLER BACKSCATTERING	Russia
2682	Alexander Yashin FIRST RESULTS OF EHO-LIKE FLUCTUATIONS STUDIES AT THE SPHERICAL TOKAMAK GLOBUS-M2	Russia
2686	Yifei Wu Research on the relationship between microstructure and mechanical properties of CHSN01 jacket under cold deformation	China
2688	Kohki Kumagai QUANTITATIVE EVALUATION OF BEAM LOSS BASED ON RADIATION DETECTION IN HIGH-DUTY BEAM COMMISSIONING OF LIPAC RFQ	Japan
2690	Tatsuya Yokoyama	Japan

	DISRUPTIONS AND MHD INSTABILITIES OBSERVED IN THE INITIAL OPERATION PHASE OF JT-60SA	
2691	Masayuki Yoshikawa Effect of edge-localized mode simulation on detached plasma in the divertor simulation experimental module of GAMMA 10/PDX	Japan
2692	Shuhei Sumida CHARACTERISTICS OF RUNAWAY ELECTRON LOSS IN THE INTEGRATED COMMISSIONING OF JT-60SA	Japan
2694	Yuto NOGUCHI Development of in-vessel rail deployment and connection method for ITER Blanket remote maintenance	Japan
2695	Hiroyuki Noto Development of pure boron pellet for fusion reactor	Japan
2696	Shinji Kobayashi Regime of Electron Internal Transport Barrier in High-Density NBI Heated Plasmas of Heliotron J	Japan
2697	Naoki Kenmochi Experimental identification of coexisting local and non-local turbulence	Japan
2698	Yuki Takemura Frequency Hysteresis of MHD Instabilities in Helical and Tokamak Plasmas	Japan
2699	Takuya Iwamoto Automated design rationalization of robot component configuration for in-vessel task of ITER Blanket Remote Handling System	Japan
2701	Weiye Xu DESIGN OF THE ELECTRON CYCLOTRON HEATING EXPANSION SYSTEM ON EAST	China
2702	Kazunobu Nagasaki Effect of ECH on Energetic-Particle-Driven MHD Modes in Heliotron J	Japan
2705	Haowei Zhang Progress on nonlinear MHD modeling of α pumping and hybrid scenario for ASDEX Upgrade plasmas	Germany
2706	Marina Bikchurina MEASUREMENT OF NUCLEAR REACTION CROSS-SECTION FOR THERMONUCLEAR APPLICATIONS	Russia
2707	Kazuo Toi Observation of non-collisional ion heating in helical plasmas under dominant electron heating condition by neutral beam injection on LHD	Japan
2708	Alexander Yashin Verification of energetic and angular distributions of nuclear fusion products in plasmas	Russia
2710	Shuowei Gao	China

	Dynamic Evolution of Multi-Physics-Dependent Non-Uniform Inter-Turn Contact Resistivity in No-Insulation REBCO Magnets: Modeling and Experimental Validation	
2712	Kenichi Nagaoka Experimental study on configuration dependence of turbulent transport on LHD	Japan
2713	Michiaki Inomoto CURRENT REARRANGEMENT IN MERGING START-UP OF SPHERICAL TOKAMAK PLASMAS	Japan
2714	Haruhisa Nakano Beamlet divergence of research and development negative ion source with RF mode at NIFS	Japan
2715	Masashi Kasaki Repetitive generation of hydrogen negative ion beams with initial target parameters for the ITER HNB	Japan
2716	Shinichiro Kojima OPTIMAL DESIGN OF FAST PLASMA BOUNDARY CONTROL CONSIDERING VERTICAL INSTABILITY FEATURES USING IN-VESSEL COILS IN JT-60SA	Japan
2719	Sebastijan Brezinsek PROGRESS IN PLASMA-WALL INTERACTIONS MODELLING FOR EU-DEMO	Germany
2720	Emmanuel Joffrin Pulse Design Simulator for JT-60SA	France
2723	Boris Kuteev The impact of a flying collector on runaway electrons during current disruption in a tokamak	Russia
2724	Yasushi Ono INTERMITTENT MERGING OPERATIONS OF SPHERICAL TOKAMAK PLASMAS FOR RECONNECTION HEATING AND HELICITY INJECTION	Japan
2728	Ryunosuke Takizawa Laser-driven non-thermal aneutronic Proton-Boron fusion reactions in solid-density plasma	Japan
2729	Masaki Nishiura Bifurcated particle transport states driven by regulatory energetic ions in LHD plasmas	Japan
2730	Yoshitaka Mori EXPERIMENTAL UPDATE ON THE COUNTER-ILLUMINATING FAST IGNITION SCHEME USING THE KJ-CLASS ULTRA-INTENSE LASER LFEX	Japan
2731	Kazuki Matsuo 10-HZ LASER BEAM STEERING AND ILLUMINATION FOR FREE-FALL TARGETS	Japan
2734	Faridodin Sedighi	Iran

	INVESTIGATING THE FORMATION AND GROWTH OF FUZZY NANO-STRUCTURES DUE TO THE INTERACTION OF HELIUM PLASMA WITH TUNGSTEN UTILIZING A DC GLOW DISCHARGE PLASMA DEVICE	
2736	Sebastijan Brezinsek Material selection for mirror substrate compatible with high-power laser beam utilized by Tritium-monitor diagnostic in ITER	Germany
2737	Salah El-Din El-Morshedy STUDY ON THE THERMAL PERFORMANCE OF ITER TUNGSTEN DIVERTOR MONOBLOCK USING NANOFLUID FOR COOLING ENHANCEMENT	Egypt
2738	Kota Yanagihara DEVELOPMENT OF A FAMILY OF RAYS TRACING CODE BASED ON A NON-COMMUTATIVE KINETIC RAY SYSTEM	Japan
2740	Naoto Tsujii Numerical Analysis of Electron Distribution Function under Electron Cyclotron Heating during Tokamak Start-up	Japan
2741	Seulchan Hong APPLICATIONS OF IN-SHOT CONTINUOUS NBI CONTROL SYSTEM TO FIRE MODE IN KSTAR	Korea, Republic of
2742	Mohd Idzat Bin Idris Recovery Behavior of High-Purity Cubic SiC for First-Wall Applications in Fusion Reactors by Post-Irradiation Annealing After Low-Temperature Neutron Irradiation	Malaysia
2743	Yves Peysson, Riccardo Saura On the selfconsistency between ray-tracing/Fokker-Planck and the toroidal MHD equilibrium for the Lower Hybrid current drive	France
2745	Alexey Dedov LIQUID METAL DROPLETS SYSTEMS FOR APPLICATION IN TOKAMAKS AND PLASMA DEVICES	Russia
2746	Pierre Manas DETERMINATION OF W CHARACTERISTICS IN WEST BY MEANS OF EXTREME UV EMISSION AND ARTIFICIAL INTELLIGENCE	France
2747	Samuele Mazzi How MeV-range ions and high β will shape the core plasma dynamics of fusion power plants	France
2748	Vladimir Pustovitov Analytical approach to calculation of disruption-induced vertical force on the tokamak wall	Russia
2750	Akira Ejiri FAST: A FUSION ENERGY SYSTEMS INTEGRATION TEST FACILITY	Japan
2751	Fabbri Fabbri Validation of Tungsten Nuclear Data Using the TUD-W benchmark	Spain

2752	Vladimir Timokhin INVESTIGATION OF FILAMENT DYNAMICS USING HIGH-SPEED VIDEO SHOOTING IN THE GLOBUS-M2 TOKAMAK	Russia
2753	Sun Hee KIM DEVELOPMENT OF ITER HIGH-FIDELITY PLASMA SIMULATOR BASED ON JINTRAC AND DINA, AND STRATEGY FOR VALIDATION	ITER Organization
2755	Evgenii Kiselev GYROKINETIC LINEAR SIMULATION OF HOT ION MODE IN GLOBUS-M2 SPHERICAL TOKAMAK	Russia
2757	Massimiliano Mattei Intra-shot Tools for Plasma Scenario Optimization and Magnetic Control	Italy
2759	Dmitry Terentyev THE BELGIUM CONTRIBUTION TO THE DEVELOPMENT OF STEELS FOR FUSION APPLICATIONS	Belgium
2760	Christian Perez von Thun Key dependencies for the radial density decay in the far-SOL of JET H-mode plasmas	Poland
2762	Francisco Javier Artola Such 3D MODELLING OF THERMAL LOADS DURING UNMITIGATED VERTICAL DISPLACEMENT EVENTS IN ITER AND JET	ITER Organization
2763	Ferran Albajar Qualification of the European gyrotrons and power supplies of the Electron Cyclotron Heating and Current Drive system of ITER	Fusion for Energy
2764	Gianmario Polli Starting DTT infrastructures construction at ENEA Frascati Site	Italy
2765	Motoshi Goto Impact of Stark Broadening on Ion Temperature Measurements in the ITER Divertor Plasma	Japan
2767	Anastasiia Shcherbak Tests of ultrasonic lithium injector with external lithium supply system on tokamak T-11M	Russia
2770	xavier Litaudon INVESTIGATING LONG-DURATION PLASMA OPERATION WITH THE INTERNATIONAL MULTI-MACHINE DATABASE	France
2772	Guiding Wang MULTI-FIELD TURBULENCE AND TRANSPORT BARRIER MEASUREMENTS AND VALIDATING PREDICTIVE CODES FOR HIGH-PERFORMANCE, NEGATIVE TRIANGULARITY ELM-FREE DIII-D PLASMAS	United States
2778	Tokihiko Tokuzawa DISCOVERY OF CROSS-SCALE NONLINEAR INTERACTION AND BIFURCATION IN MULTI-SCALE TURBULENCE IN LHD PLASMA	Japan

2779	RYOSUKE SEKI Hybrid simulation of Alfvén eigenmodes caused by multiple fast ion species in the Large Helical Device	Japan
2780	Huishan Cai MUTLISCALE GYROKINETIC SIMULATIONS OF THE INTERACTION BETWEEN TURBULENCE AND FISHBONE	China
2781	Yunfeng Liang EDGE MAGNETIC ISLANDS AND ITS APPLICATION TO THE DEVELOPMENT OF ADVANCED DIVERTOR CONFIGURATION ON THE J-TEXT TOKAMAK	Germany
2782	Tara Ahmadi THE SCALING OF THE ION HEATING AND ELECTROSTATIC POTENTIAL IN SPHERICAL TOKAMAK	Japan
2783	kazuaki Hanada NON-INDUCTIVE PLASMA START-UP USING ELECTRON BERNSTEIN WAVE MODE-CONVERTED FROM ELECTRON CYCLOTRON WAVE LAUNCHED FROM HIGH-FIELD SIDE ON SPHERICAL TOKAMAK, QUEST	Japan
2786	Tong Liu ELECTRON DENSITY WINDOW ON THE SUPPRESSION OF SPONTANEOUS NEOCLASSICAL TEARING MODE WITH HIGH FRACTION OF BOOTSTRAP CURRENT	China
2787	Hiroe Igami OBSERVATION OF NONLINEAR COUPLING OF WAVES EXCITED AT DISTINCT REGIONS OF OVERLAPPING DUAL LOWER HYBRID AND ION CYCLOTRON RESONANCES	Japan
2788	Antti Hakola Material migration and erosion of plasma-facing components in the full-tungsten WEST tokamak during its Phase 1 and Phase 2 operations	Finland
2791	paolo zanca A novel computation of the linear plasma response to a resonant error field in single-fluid visco-resistive MHD and application to the RFXmod2 tokamak	Italy
2792	Saul Garavaglia OVERVIEW OF THE DESIGN AND PROCUREMENT OF ECRH SYSTEM FOR DTT	Italy
2793	Ryuichi Sano INVESTIGATION OF PLASMA PARAMETERS IN SAW-TOOTH OSCILLATION BY ABSOLUTE INTENSITY OF SOFT X-RAY EMISSION IN JT-60SA INTEGRATED COMMISSIONING PHASE	Japan
2794	Sam Blackmore INVESTIGATION OF THE MAGNETIC FLUX PUMPING EFFECT IN MAST UPGRADE	United Kingdom
2795	Kieran Joseph Mc Carthy INTERPRETING STRUCTURES OBSERVED IN PELLET AB- LATION PROFILES IN THE STELLARATOR TJ-II	Spain

2796	Eugene Mukhin HIGH-FIELD-SIDE HIGH-DENSITY REGION IN GLOBUS-M2 DIVERTOR	Russia
2797	William Brace Catalogue-based reverse engineering: for AI-based modelling in fusion remote maintenance equipment design	Finland
2798	Zetao Lin Lagrangian statistics of heavy impurity transport in drift-wave turbulence	France
2799	Mengdi Kong Experimental analyses and numerical modelling of trace neon shattered pellet injection discharges on JET	Switzerland
2800	Sergey Polosatkin PROGRESS IN MULTIPLE-MIRROR PLASMA CONFINEMENT AT THE GOL-NB FACILITY	Russia
2801	Daisuke Umezaki Effect of collision processes in divertor plasma on the tokamak operational window	Japan
2802	Mizuki Sakamoto RECENT PROGRESS IN THE PILOT GAMMA PDX-SC SUPERCONDUCTING MIRROR	Japan
2803	Isabel García-Cortés EXPLORING ENHANCED PLASMA PERFORMANCE AFTER PELLET INJECTIONS VIA ROTATIONAL TRANSFORM MODULATION IN THE TJ-II STELLARATOR	Spain
2804	Victor Tribaldos CONFINEMENT MODELLING OF ENHANCED PLASMA PERFORMANCE AFTER MULTIPLE PELLET INJECTIONS IN THE TJ-II STELLARATOR	Spain
2805	Stefan Marsen THE WENDELSTEIN 7-X ECRH PLANT - EXPERIENCE WITH RELIABLE LONG PULSE OPERATION OF A MULTI MW GYROTRON INSTALLATION	Germany
2807	Qian Xia CRYOPUMP AND FUELLING LOCATION IMPACTS ON UPSTREAM DENSITY AND DETACHMENT ON MAST-U	United Kingdom
2809	Leonid Askinazi MEASUREMENTS OF TOROIDAL ROTATION VELOCITY IN TUMAN-3M TOKAMAK IN NBI AND H-MODE REGIMES	Russia
2810	Igor Garkusha Performance of Li- and Sn-filled CPS targets under the transient plasma loads in QSPA	Ukraine
2811	Tamas Szepesi Utilizing a visible camera in the first operation phase(s) of a fusion device	Hungary
2812	Olga Skrekel STUDY OF FAST ION TRANSPORT AND LOSSES DURING ALFVÉN TYPE MHD INSTABILITIES AT GLOBUS-M2	Russia

2814	damian king JET HYBRID SCENARIO DEVELOPMENT IN D-T FOR IMPURITY SCREENING STUDY	United Kingdom
2815	Roman Afanasenko OPENMC BASED SIMULATIONS FOR SHUTDOWN DOSE RATE ASSESSMENT IN THE DEMO FUSION REACTOR	Germany
2816	Afra Romano THE STATUS AND DESIGN CHALLENGES OF THE HEATING AND CURRENT DRIVE SYSTEMS FOR DTT	Italy
2817	Vladimir Solokha NUMERICAL ANALYSIS OF PEELING-BALLOONING STABILITY AT VARIOUS TRIANGULARITIES IN GLOBUS-M2	Russia
2818	Umar Sheikh Multi-Machine Studies of Low-Z Benign Termination of Run-away Electron Beams and Extrapolation to ITER	Switzerland
2819	Ernesto Lerche HEATING D IONS TO OPTIMAL D-T FUSION ENERGIES WITH ICRF WAVES	Belgium
2820	George Holt Learned models for integrated tokamak scrape-off layer modelling and design	United Kingdom
2821	Tuomas Tala Dimensional Isotope Scaling of Heat and Particle Transport between JET Deuterium and Tritium L-mode Plasmas	Finland
2823	Rongjie HONG Operating Beyond the Greenwald Density Limit in Negative Triangularity Plasmas on DIII-D Tokamak	United States
2824	Antti Snicker Fast ion transport simulations for the Spherical Tokamak for Energy Production	Finland
2827	Carlo Sozzi OVERVIEW OF THE EUROPEAN CONTRIBUTION TO THE DIAGNOSTIC EQUIPMENT OF JT-60SA FOR THE NEXT OPERATIONAL PHASES	Italy
2829	Jayhyun Kim MULTI-SCALE INTERACTION NEAR LOCKED MAGNETIC ISLANDS AND RESULTING DISRUPTION DELAY IN KSTAR	Korea, Republic of
2830	Kenji Imadera Fuel supply and helium ash exhaust in global gyrokinetic ITG/TEM turbulence	Japan
2831	Wei Chen Density Limit Disruption Induced by Core-localized Alfvénic Ion Temperature Gradient Instabilities in a Toroidal Plasma	China
2832	Masaki Uchida Noninductive Startup of Spherical Tokamak with Reduced Trapped Electrons by Electron Bernstein Wave Heating and Current Drive on LATE	Japan

2833	TAKEYUKI TANAKA Development of welding, cutting and bolting tools for ITER blanket remote maintenance	Japan
2834	Jozef ONGENA Progress with commissioning the icrh system for the large optimized stellarator wendelstein 7-x	Belgium
2835	HIROKI KAYANO MACHINE ENHANCEMENT OF TOKAMAK DEVICE FOR THE JT-60SA NEXT OPERATION	Japan
2836	Lei Qi Global gyrokinetic simulations of isotope effects for future tokamak plasma core and pedestal	Korea, Republic of
2838	Shinya Maeyama Extrapolative Predictability of Plasma Turbulent Transport via a Multi-Fidelity Data Fusion Approach	Japan
2839	Masakatsu Fukumoto WALL CONDITIONING PLASMA PRODUCTION USING FUNDAMENTAL AND SECOND HARMONIC ELECTRON CYCLOTRON WAVES IN JT-60SA	Japan
2840	Jie Wu Investigation of broadband fluctuation-induced inward transport at the edge of HL-2A NBI heated plasma	China
2841	Chenguang Wan ESTIMATION OF PLASMA PARAMETERS BASED ON DISCHARGE SETTINGS ON WEST	Singapore
2843	Andrey Shoshin BORON CARBIDE CERAMICS AS NEUTRON SHIELDING FOR ITER PORT-PLUGS	Russia
2844	Christoph Pitzal Global Fluid Turbulence Simulations of Pedestal Relaxation Events in the I-mode regime with GRILLIX	Germany
2846	Naomichi Ezumi IMPACT OF ION TEMPERATURE ON DETACHED PLASMA IN GAMMA 10/PDX DIVERTOR SIMULATION PLASMA	Japan
2848	Davide Silvagni Scaling of the H-mode electron separatrix density based on engineering parameters from C-Mod, AUG and JET data	Germany
2849	Jaewook Kim Bayesian Data Fusion for Enhanced Edge Plasma Density Profile estimation in KSTAR	Korea, Republic of
2851	Yoshiaki Ohtani CONFINEMENT PROPERTY IN THE JT-60SA FIRST OPERATIONAL PHASE	Japan
2852	Prakhar Sharma Developing Open Machine Learning Benchmarks for Tokamak Event Prediction from MAST	United Kingdom
2854	Clara Colomer, Miguel Perez	Fusion for Energy

	ADVANCES IN EUROPEAN IN-KIND CONTRIBUTIONS TO PLASMA DIAGNOSTICS AND PORT INTEGRATION FOR ITER	
2856	Holger Reimerdes Implementation of a tightly baffled long-legged divertor in TCV	Switzerland
2858	Margherita Ugoletti Study of plasma-edge turbulence reduction in negative triangularity plasmas using Thermal Helium Beam diagnostic in the TCV Tokamak	Italy
2859	Emilio Ruiz Morales Europe's cutting-edge Handling Systems for the ITER assembly in the pre-start of research operations phase	Fusion for Energy
2860	Sandra Julia Torres THE FINAL DESIGN ACCOMPLISHMENT OF THE EC UPPER LAUNCHER AND EX-VESSEL WAVEGUIDE SYSTEMS FOR ITER	Spain
2864	Ivo Furno Active spectroscopy for atomic H and D measurements in fusion	Switzerland
2865	Alexander Melnikov GAM FREQUENCY STRUCTURE AND PROPERTIES IN OHMIC AND POWERFUL ECR-HEATED PLASMAS IN A TOKAMAK	Russia
2867	Philippe Jacquet The construction and commissioning of the Electron Bernstein Wave Heating and Current-Drive System for MAST-U	United Kingdom
2869	Francesca POLI A MULTISCALE AND MULTIPHYSICS APPROACH TO THE DEVELOPMENT OF A HIGH-FIDELITY PHYSICS PLASMA SIMULATOR FOR BURNING PLASMA	ITER Organization
2870	Ralf Kaiser A Global Licensing and Regulation Framework for Fusion Energy	Italy
2871	Nicola Amorisco FREEGSNKE: AN OPEN SOURCE, PURE-PYTHON, PREDICTIVE EVOLUTIVE EQUILIBRIUM CODE FOR CONTROL DESIGN AND VALIDATION – Applications at UKAEA	United Kingdom
2872	Jack Acres STEP: NOVEL POWER INFRASTRUCTURE FOR FUSION POWERPLANTS	United Kingdom
2876	Shiyong Zeng IMPURITY RADIATION SEEDING OF NEOCLASSICAL TEARING MODE GROWTH	China
2877	Ryunosuke Takizawa Evaluation of solid spherical fuel compression by comparison with simulation	Japan
2878	binfu Gao	China

2879	Modeling of heat flux on the main limiter in EAST Liqing Xu	China
2880	INVESTIGATING OF MULTI-SCALE INSTABILITIES IN EAST ION TEMPERATURE CENTRAL PEAK DISCHARGE Shota Sugiyama	Japan
2881	Evaluation of plasma performance in JA DEMO steady-state operation Jae-Min Kwon	Korea, Republic of
2882	Virtual Tokamak for Integrated Physics and Engineering Anal- ysis Weixi Chen	Japan
2883	STRUCTURE DESIGN OF POLOIDAL HORSESHOE LIM- ITER FOR PULSE OPERATION HEAT LOAD IN JA DEMO Guizhong Zuo	China
2884	APPLICATION OF LOW-Z MATERIALS FOR ENHANCING H MODE PLASMA PERFORMANCE AND PULSE DURA- TION IN EAST WITH FULL METAL WALL weijun Wang	China
2885	Research on new high-strength structural materials for low- temperature applications in the next generation of fusion re- actors Haotian Chen	China
2889	Can turbulent transport in optimized stellarators be lower than tokamaks SHOUXIN WANG	China
2891	PARTICLE TRANSPORT OF OHMIC DISCHARGES WITH DIFFERENT PLASMA CURRENT IN EAST TOKAMAK Haruhiko Saitoh	Japan
2892	Observation of fluctuation-induced particle transport phe- nomena in the RT-1 levitated dipole Boseong Kim, Sang-hee Hahn	Korea, Republic of
2893	Exploitation of stable high- I_p regime under new tungsten di- vertor environment in KSTAR Zihao Gao	China
2894	SIMULATIONS OF RMP CONFIGURATIONS FOR TUNG- STEN IMPURITY CONTROL IN EAST TOKAMAK Ming Xu	China
2895	Experimental study of EPM instability in the EAST off-axis re- gion with elevated safety factor (q) value yongliang Li	China
2896	IMPROVEMENT OF PLASMA PERFORMANCE BY EDGE ECRH POWER DEPOSITION IN EAST Satoru Yajima	Japan
2897	STRAY RF EVALUATION AND DESIGN IMPROVEMENT ON THE ITER EQUATORIAL EC H Alexei Popov	Russia

	ANOMALOUS X2-MODE ECRH POWER ABSORPTION AT THE TJ-II STELLARATOR: COMPARISON OF THEORY AND EXPERIMENTS	
2899	Emmi Tholerus Pumping requirements for core plasma performance in STEP using JINTRAC	United Kingdom
2900	Zhixin Lu Global Electromagnetic Symmetry-Breaking Effects on Momentum Transport and Current Generation in Tokamaks	Germany
2901	Daniel Carralero Zonal Flows in stellarators: Experimental measurements, code validation and implications for future reactors	Spain
2905	Luca Balbinot Defining Operational Scenarios for DTT in metallic environment: A Modeling Study of Core-Edge Dynamics and Plasma-Wall Interaction	Italy
2906	Yuan-lai Xie, huihui hong Study on the key technologies involved in the laser neutralisation of negative ion source	China
2907	Vadim Yanovski Conceptual design of the Fusion ENergY eXperiment (FENYX)	Czech Republic
2908	Michal Jan Kryjak Impact of radiation distribution on detachment onset and implications for STEP divertor design	United Kingdom
2910	Denis Kuprienko THE EFFECT OF GAS PUFFING AT THE LH GRILL ON THE EFFICIENCY OF THE CENTRAL DENSE PLASMA ION HEATING AT THE FT-2 TOKAMAK	Russia
2912	Alexander Bock Flux Pumping in ASDEX Upgrade, JET and JOREK	Germany
2913	Gleb Kurskiew NEUTRAL BEAM INJECTION FOR ELECTRON HEATING OF GLOBUS-M2 SPHERICAL TOKAMAK'S PLASMA	Russia
2914	Vladimir Minaev THE GLOBUS-3 PROJECT AS THE NEXT STEP IN THE RESEARCH PROGRAM ON SPHERICAL TOKAMAKS AT THE IOFFE INSTITUTE	Russia
2915	Wei Yan OVERVIEW OF PLASMA DISRUPTION MITIGATION ON J-TEXT TOKAMAK	China
2916	Taeuk Moon Predictive study of non-axisymmetric neutral beam ion loss on the upgraded KSTAR plasma-facing components	Korea, Republic of
2917	Anton Jansen van Vuuren Control of energetic particle modes on the TCV tokamak	Switzerland
2921	Simona Breidokaite	Lithuania

	Neutronics Analysis of EU DEMO Conducted at the Lithuanian Energy Institute	
2923	Pengjun Sun EXPERIMENTAL AND NUMERICAL STUDY OF BROAD WAVENUMBER TURBULENCE AND TRANSPORT IN ION INTERNAL TRANSPORT BARRIER PLASMAS ON EAST	China
2926	Viacheslav Budaev Overview of the recent experimental studies of plasma-facing components irradiated with divertor relevant plasma	Russia
2928	Simon Kirk STEP INBOARD SYSTEM “ ARCHITECTURE AND TECHNOLOGY DEVELOPMENT OVERVIEW	United Kingdom
2929	Pierre Manas BREAKING OF THE ION TEMPERATURE CLAMPING IN ELECTRON HEATED PLASMAS WITH TURBULENCE STABILIZATION	France
2931	Anna Golubeva Deuterium interaction with low“activated chromium-manganese austenitic steel with increased contamination of carbide particles	Russia
2932	Adriano Agnello AI-AUGMENTED SCENARIO DESIGN AND CLASSICAL CONTROL OF TOKAMAK PLASMAS	United Kingdom
2933	Sergey Fedorovich Generation and acceleration of steady-state plasma in PLM-M device for testing of fusion materials	Russia
2936	Lorenzo Zanisi DATA-EFFICIENT DIGITAL TWINNING STRATEGIES AND SURROGATE MODELS OF QUASILINEAR TURBULENCE IN JET AND STEP	United Kingdom
2943	Bart Van Compernelle Observations of core heating and current drive by helicon waves at DIII-D	United States
2944	Olivier F��vrier Core-edge integration studies in negative triangularity in TCV	Switzerland
2949	Tetsutarou Oishi Exploration of emission spectra from highly charged tungsten impurity ions in X-ray wavelength range of 3.7“4.0 � in the Large Helical Device for fusion plasma diagnostics	Japan
2951	Panith Adulsiriswad Fusion-Alpha-Enhanced Displacement and Stability of ITER Helical Core Plasmas	Japan
2952	Jin yong Kim EFFECT OF DECREASING ASPECT RATIO ON ION-SCALE ELECTROSTATIC DRIFT-TYPE MODES AND PEDESTAL STABILITY IN H-MODE PLASMAS	Korea, Republic of
2953	Tomone SUWA	Japan

2957	Breakthrough in performance degradation of ITER central solenoid conductors owing to short-twist-pitch cabling and suppression of bending strain Zhiyong Qiu	China
2958	Nonlinear saturation of toroidal Alfvén eigenmode via ion induced scattering in nonuniform plasmas Kimin Kim	Korea, Republic of
2960	Prediction of heat flux splitting by non-axisymmetric magnetic field in the realistic tokamak wall and divertor based on 3D CAD model Ting Wu	China
2962	Compatibility of pronounced detachment with improved confinement on HL-2A tokamak Hogun Jhang, Minjun Choi	Korea, Republic of
2964	ELECTRON CYCLOTRON HEATED LOW TO HIGH MODE TRANSITION IN KSTAR Do Hyun KIM	Korea, Republic of
2966	APPLICATION AND ANALYSIS OF THE REVISED ACCURATE WEIGHT METHOD FOR FUSION FACILITIES Yonghee Lee	Korea, Republic of
2967	DESIGN-BASED MULTIDINENSIONAL TRITIUM TRANSPORT ANALYSIS PLATFORM FOR BLANKET SYSTEM Hui-Hui WANG	China
2968	OVERVIEW OF ERROR FIELD SCALING STUDIES IN EAST AND IMPLICATIONS FOR ITER Gongshun Li	China
2969	IMPACT OF THE TEMPERATURE RATIO ON TURBULENCE AND IMPURITY TRANSPORT IN THE EAST PLASMA CORE Qinghao Yan	China
2970	Self-organized states of Alfvén eigenmodes and zonal modes via cross-scale interactions Dohee Lee, Woong Chae Kim	Korea, Republic of
2972	DEVELOPMENT STATUS OF IN-VESSEL COMPONENTS INSPECTION AND PIPE MAINTENANCE ROBOT FOR K-DEMO AND FUSION EXPERIMENTAL DEVICE Tetsuji Kato	Japan
2973	Energy exchange between electrons and ions induced by ITG-TEM turbulence Tomonobu Itagaki	Japan
2974	ANALYSIS OF BACKGROUND PLASMA BEHAVIOR UNDER EXTERNAL FIELDS IN THE LOW ENERGY BEAM TRANSPORT SECTION OF LIPAC Donguk KIM	Korea, Republic of
2975	GYROKINETIC ANALYSIS FOR ELECTRON-SCALE TURBULENCE IN KSTAR FIRE MODE DISCHARGE Jekil Lee	Korea, Republic of
	ELM SUPPRESSION BY ECCD-CONTROLLED BENIGN MHD MODES IN THE KSTAR TOKAMAK	

2976	Minjun J. Choi LEVERAGING TURBULENCE DATA FROM FUSION EXPERIMENTS	Korea, Republic of
2977	Myungwon Lee DYNAMICS OF INTERNAL RECONNECTION EVENTS IN VERSATILE EXPERIMENT SPHERICAL TORUS	Korea, Republic of
2978	Yuxiang Sun SIMULATION OF STOCHASTIC TRANSPORT AND DEPOSITION OF SEED RUNAWAY ELECTRONS DURING ITER SPI	China
2980	Kyle Damm CONJUGATE HEAT TRANSFER LARGE EDDY SIMULATION OF A HYPERVAPOTRON: FROM INCIPIENT NUCLEATE BOILING TO CRITICAL HEAT FLUX	United Kingdom
2981	Youwen Sun LOWER DENSITY LIMIT FOR ACCESSING TO ELM SUPPRESSION USING N=4 RMP IN EAST	China
2982	Jianglong Wei, Lizhen Liang PROGRESS OF CRAFT NEGATIVE ION SOURCE NEUTRAL BEAM INJECTION TEST FACILITY	China
2983	Alexandr Kasatov Study of erosion of ceramic materials under transient thermal load	Russia
2984	Gyungjin CHOI THEORY OF FAST ION POPULATION EFFECT ON TURBULENCE SELF-REGULATION IN MAGNETIZED FUSION PLASMAS	Korea, Republic of
2985	Changrae Seon DESIGN AND DEVELOPMENT OF ITER VUV SPECTROMETERS WITH PROTOTYPE TESTING	Korea, Republic of
2986	Chweeho Heo GROWING NONLINEARITY IN KSTAR FIRE MODE PEDESTAL PROVIDES CLUE TO UNDESIRABLE H-MODE TRANSITION IN I-MODE PLASMAS	Korea, Republic of
2987	Ryota Matoike DENSITY DEPENDENCE OF CONVECTION IN PARALLEL HEAT TRANSPORT IN THE SCRAPE-OFF LAYER OF JT-60U	Japan
2989	Hua-sheng Xie Overview of the physics design of the EHL-2 spherical torus for proton-Boron fusion	China
2990	Sarfraz Ahmad Performance MT-I spherical tokamak with upgraded power supplies system	Pakistan
2991	Eva Belonohy PROGRESS IN FUSION WORKFORCE DEVELOPMENT AND EDUCATION IN EUROPE, USA, JAPAN AND ITER	Czech Republic
2993	Juhyeok Jang Characteristics of tungsten impurity sources and transport in KSTAR	Korea, Republic of

2994	Jinwoo Gwak A SIMULATION STUDY OF PLASMA BREAKDOWN IN THE TOKAMAK ELECTRON CYCLOTRON PRE-IONIZATION PHASE	Korea, Republic of
2995	Changzhi Jiang Flux-driven simulations of self-generated radial electric fields and transition to improved confinement regime	China
2996	Pavel Aleynikov EFFECT OF ELECTRON CYCLOTRON WAVES ON PLASMA WITH RUNAWAY ELECTRONS	Germany
2997	Zhe Gao Nonlinear spectrum evolution of lower hybrid waves and den- sity limit of lower hybrid current drive	China
2998	Lu Wang EFFECTS OF FINITE ION TEMPERATURE AND ITS GRA- DIENT ON HASEGAWA-MIMA EQUATION AND ZONAL FLOW GENERATION	China
3000	Bo Rao A Possible Method to Implement Passive 3d Coils for Runaway Electron Suppression in Future Reactor-Scale Tokamaks	China
3002	Changzhi Jiang BOUNCE-AVERAGED FLUID EQUATIONS FOR INTER- CHANGE DYNAMICS IN A DIPOLE-CONFINED PLASMA	China
3004	Zhisong Qu Neural network reduced models for plasma turbulence	Singapore
3005	Wei Zhang Strong toroidal electric field generation during sawtooth crashes	China
3006	Wei Shen Investigation of double frequency fishbone in EAST with neu- tral beam injection	China
3008	Sawoong KIM A MATERIAL DATABASE OF SS316L(N)-IG FOR ITER BLANKET SHIELD BLOCKS	Korea, Republic of
3009	yu chen Simulation of Pulse Quench Propagation in Superconducting Magnets for the Next Generation Compact Fusion Energy Ex- perimental Device	China
3011	Yury Shpanskiy RESEARCH AT THE KURCHATOV INSTITUTE IN SUPPORT OF THE CREATION OF A HYBRID FUSION-FISSION SYS- TEM	Russia
3012	yuanming yang Progress of the EHL-2 Spherical Torus Engineering Design	China
3013	Naomi Carey DATA EFFICIENCY AND LONG-TERM PREDICTION CAPA- BILITIES FOR NEU- RAL OPERATOR SURROGATE MOD- ELS OF EDGE PLASMA CODES	United Kingdom

3014	Junghoo Hwang Experimental investigation of deuterium and nitrogen-seeded H-mode plasmas in KSTAR with new W divertor	Korea, Republic of
3016	Li FAN Towards Practical Fusion Energy: Engineering Challenges and Development Strategies by the Perspective of CNPE	China
3017	Hong Lei FUSION MAGNET POWER EQUIPMENT INSTALLATION DESIGN BASED ON MULTI-PHYSICS FIELD COUPLING AND MODULAR OPTIMIZATION	China
3018	Anton Putrik ASSESSMENT OF B4C AS FIRST WALL COATING FOR THERMONUCLEAR REACTOR	Russia
3019	Timofey Kormilitsyn FEATURES OF FUSION POWER MEASUREMENTS IN THE NEXT GENERATION MAGNETIC PLASMA CONFINEMENT EXPERIMENTS	Russia
3021	Shunsuke Kenjo RADIOLOGICAL SAFETY ASSESSMENTS FOR FUSION NEUTRON SOURCE IN ENGINEERING DESIGN ACTIVITIES UNDER IFMIF/EVEDA PROJECT	Japan
3024	Yuhe Feng FIRST QUANTIFICATION OF VOLUME RECOMBINATION IN W7-X WITH EMC3-EIRENE	Germany
3025	JIE ZHANG Investigation of high Q L-mode plasma operation sustained by enhanced pellet fueling in ITER	China
3026	Agata Chomiczewska INVESTIGATION OF IMPURITY BEHAVIOUR IN THREE-ION ICRF SCENARIOS IN H-D AND D-T PLASMAS AT JET	Poland
3027	Irena Ivanova-Stanik INTEGRATED NUMERICAL ANALYSIS OF IMPURITY TRANSPORT AND SOURCES FOR HIGH CURRENT“HIGH POWER BASELINE PULSES WITH T IN JET-ILW	Poland
3029	Aaro Järvinen DEVELOPING MACHINE LEARNING FACILITATED PEDESTAL MODELS	Finland
3030	oleg sotnikov Technologies of high voltage neutral beam injectors for magnetic fusion devices	Russia
3031	Jingchun Li Coupling of Geodesic Acoustic Modes and Resonant Magnetic Perturbations in Fusion Plasmas	China
3032	Zhongbing Shi EFFECTS OF INTER-ELM QUASI-COHERENT MODES ON THE DYNAMICS OF PEDESTAL TURBULENCE ON HL-2A TOKAMAK	China

3033	Gustavo Grenfell New insights on the quasicohherent mode in EDA high confinement discharges	Germany
3035	Lidia piron MACHINE LEARNING AIDED NEUTRON YIELD FOR DUD DETECTION BASED ON JET AND TFTR DEUTERIUM-TRITIUM PLASMAS	Italy
3041	Daniel Medina Roque IMPACT OF LI-GRANULE INJECTION ON THE IMPROVEMENT OF BULK ENERGY AND PARTICLE TRANSPORT AND EXPULSION OF MID/HIGH-Z IMPURITIES IN THE LHD HELIOTRON	Spain
3043	Kunihito Yamauchi Improvements of Magnet Power Supply System and Achievements in Coil Energization Tests for First Plasma of JT-60SA	Japan
3044	Rory Scannell IMPACT OF TRANSIENT HEAT LOADS ON THE DETACHED MAST UPGRADE SUPER-X DIVERTOR	United Kingdom
3045	Shi-Jie Liu 3D hybrid fluid-kinetic simulations of large scale plasma instabilities in runaway electron beams	Germany
3046	Yong Xiao SURROGATE MODEL FOR TURBULENT TRANSPORT USING DEEP LEARNING AND PLASMA PROFILE PREDICTION IN TOKAMAK PLASMAS	China
3047	xinchen Jiang Non-Inductive Current Start-up and Optimized Ramp-up in EXL-50U for Next-Generation Spherical Torus Devices	China
3048	Sven Wiesen EXHAUST OPERATIONAL SPACE ASSESSMENT FOR THE EUROPEAN VOLUMETRIC NEUTRON SOURCE (EU-VNS)	Germany
3049	Raphael MITTEAU WEST advanced wall protection achievements toward long pulse operation	France
3050	Dmitry Moseev First fast ion measurements by the collective Thomson scattering and ion cyclotron emission diagnostics at Wendelstein 7-X.	Germany
3051	Guo Meng Drift-kinetic and fully kinetic simulations of plasma waves based on a geometric Particle-In-Cell discretization of the Vlasov-Maxwell system	Germany
3054	Damiano Capobianco FEASIBILITY STUDY OF TUNGSTEN-WATER/AIR REACTION IN DEMO CONDITIONS	Italy
3058	Xiao Song	China

	VERIFICATION AND OPTIMIZATION OF VDES BY COUPLING THE FREE-BOUNDARY EQUILIBRIUM AND TRANSPORT CODES WITH CONTROL IN THE HL-3 TOKAMAK	
3059	Hjalte Durocher, Xingyu Yang BB Segment Grasping Pipeline with Variable Admittance Control for EU DEMO Remote Maintenance	Denmark
3060	Liming Yu Experimental observations of magnetohydrodynamic instabilities in HL-3 low-current high- β_N plasmas	China
3061	Sergei Lebedev OBSERVATION OF HIGH-FREQUENCY OSCILLATIONS IN THE TUMAN-3M OHMIC PLASMAS	Russia
3063	Yi Zhang FIRST EXPERIMENTAL OBSERVATION OF "STAIRCASE" HIGH CONFINEMENT MODE IN TOKAMAK PLASMA	China
3067	Nicolas RIVALS The X-Point Radiator regime in the WEST tokamak for divertor operation in next step fusion devices	France
3068	Eddie Pennington Application of a Design Structure Matrix Methodology to STEP Plasma Control System Design and Sensor Optimisation	United Kingdom
3070	Lionello Marrelli RFX-mod2 and the NEFERTARI project: a diffuse infrastructure for the study of magnetically confined plasmas for fusion	Italy
3072	Eleonore Geulin WEST wall conditioning with boron: lessons for ITER and fusion power plants	France
3073	Francesco Porcelli $n=0$ VERTICAL DISPLACEMENTS, IMPACT OF MAGNETIC X-POINTS, AND VERTICAL DISPLACEMENT OSCILLATORY MODES DRIVEN BY FAST IONS IN TOKAMAK PLASMAS	Italy
3075	Vladislav Plyusnin RUNAWAY ELECTRONS IN JET – SUMMARY ON RE DATA AFTER THE END OF JET OPERATIONS	Portugal
3076	Massimo Nocente Alpha particle velocity space and orbit sensitivity of gamma-ray spectroscopy diagnostics based on the $^{10}\text{B}(\alpha, p\gamma)^{13}\text{C}$ reaction	Italy
3079	Jungpyo Lee FEASIBILITY OF MAIN THERMAL ION HEATING BY ICRF WAVES USING A TOP LAUNCHER IN A TOKAMAK WITH DEUTERIUM-TRITIUM PLASMAS	Korea, Republic of
3082	Zeyu Li Demonstration and Investigation of a Reactor-Relevant, Low-Collisionality, High-Performance, Intrinsic Grassy ELM Regime in DIII-D	United States

3084	Ivan Belyaev EXPERIMENTAL RESEARCH ON MAGNETOHYDRODYNAMIC (MHD) FLOWS IN LIQUID METAL COOLING SYSTEMS FOR FUSION REACTORS	Russia
3089	Brett Chapman EVOLUTION AND MITIGATION OF RUNAWAY ELECTRONS EMERGING DURING TOKAMAK PLASMA START-UP	United States
3091	Pablo Garcia-Martinez Tokamak formation via localized helicity injection using tangential boundary flows	Argentina
3096	Youngwoo Cho NONLOCAL BEHAVIOR OF TURBULENCE IN THE PRESENCE OF POLOIDALLY LOCALIZED HEAT SOURCE	Singapore
3098	LingFeng Lu ICRF ANTENNA DESIGN FOR THE HL-3 TOKAMAK	China
3100	Teruya Tanaka Design studies on advanced self-cooled liquid test blanket modules for JA-DEMO	Japan
3104	Jens-Uwe Schmollack REGULATORY FRAMEWORK TOWARDS FUSION ENERGY IN GERMANY	Germany
3105	Wenjin Chen A mechanism to trigger edge localized mode crash due to a threshold of magnetic perturbation driven by peeling-ballooning mode	China
3107	Shinichiro Kado Dynamic Evolution of Pellet Fueling from Ablation Cloud to Reheat Mode in Heliotron J	Japan
3108	Yao Zhou NONLINEAR MAGNETOHYDRODYNAMIC MODELLING OF IDEAL BALLOONING MODES IN HIGH-BETA WENDELSTEIN 7-X PLASMAS	China
3109	Ruirui MA EFFECTS OF ZONAL FIELDS ON ENERGETIC-PARTICLE EXCITATIONS OF REVERSED-SHEAR ALFVÉN EIGEN-MODES	China
3110	Shiqin Wang Energetic-electron-driven Geodesic Acoustic Mode Interaction with Microtearing Mode for Improved Confinement on HL-3 Tokamak	China
3112	Jaemin Kim A COMPREHENSIVE DESIGN OF THE UPPER PORT 18 INTERSPACE SUPPORT STRUCTURE FOR THE ITER DIAGNOSTIC PORT	Korea, Republic of
3114	Min Jiang Influence of resonant magnetic perturbation on flow and turbulence dynamics towards L-H transition in HL-3	China

3115	Na Wu OPERATIONAL SPACE OF SMALL ELM AND ELM-FREE REGIMES ON HL-3 TOKAMAK	China
3118	Dongmei FAN Exploration of magnetic perturbation effects on plasma edge transport for advanced divertor configurations in HL-3	China
3119	peiwan shi Pressure gradient driven core-localized electromagnetic instability in the plasma with a weak magnetic shear on HL-2A tokamak	China
3123	Ling ZHANG PROGRESS OF CORE-EDGE INTEGRATED TUNGSTEN TRANSPORT STUDY IN EAST WITH ITER-LIKE TUNGSTEN DIVERTORS USING ADVANCED IMPURITY DIAGNOSTICS	China
3125	Liang Liu THE IMPURITY BEHAVIORS AND TRANSPORT ANALYSIS OF HL-2A AND HL-3 PLASMAS	China
3126	CHRISTIAN Bachmann Progress in the concept development of the VNS - a beam-driven tokamak for component testing	Germany
3127	Tomohiro Morisaki Recent Progress of Dissimilar Material Bonding Technique with Spark Plasma Sintering Method for High Heat Load Plasma Facing Components in Reactor-relevant Devices	Japan
3130	Weixin Guo HELIUM ASH REMOVAL: COMPREHENSIVE EFFECTS OF ALPHA PARTICLES ON THE SOURCE AND TRANSPORT OF HELIUM ASH	China
3131	Jie HUANG THREE-DIMENSIONAL NONLINEAR MODELING OF ELM DYNAMICS WITH BIASING IN THE HL-3 TOKAMAK	China
3134	Tianyang Xia Simulations of the interactions between ELMs and edge turbulences on fusion reactor scale facilities	China
3135	Paolo Ricci PROGRESS IN FIRST-PRINCIPLES BOUNDARY SIMULATIONS OF PLASMA TURBULENCE AND NEUTRAL DYNAMICS WITH THE GBS CODE	Switzerland
3136	Mitsutaka Isobe Engineering Design, Construction, and Flexible Control of Magnetic Field Configuration of Quasi-axisymmetric Stellarator CFQS-T	Japan
3137	Hiroshi Tanabe ION AND ELECTRON HEATING VIA MAGNETIC RECONNECTION DURING MERGING/COMPRESSION PLASMA STARTUP IN ST40	Japan
3138	Guanqun Xue	China

	CHARACTERISTICS OF HIGH FREQUENCY TURBULENCE DURING EDGE LOCALIZED MODES IN THE HL-2A TOKAMAK	
3139	Haotian Chen FAST ION TRANSPORT INDUCED BY EDGE LOCALIZED MODES	China
3140	Wei Zheng, Xinkun Ai DISRUPTION PREDICTION FOR FUTURE TOKAMAK REACTORS FROM DIFFERENT PERSPECTIVES AND WITH DIFFERENT METHODS	China
3141	Hongjuan Sun Impact of the Plasma Boundary on Machine Operation, and the Risk Mitigation Strategy on JET	United Kingdom
3143	Chenxu Wang FDTD SIMULATION OF THE PROPAGATION CHARACTERISTICS OF MILLIMETER-WAVE VORTEX IN MAGNETIZED PLASMA	Japan
3145	Cong Li ENDOSCOPE LASER-INDUCED BREAKDOWN SPECTROSCOPY (LIBS) FOR IN SITU ELEMENTAL DISTRIBUTION DIAGNOSIS ON THE SURFACE OF DIVERTOR IN EAST	China
3146	Xuebing PENG DEVELOPMENT OF METER-SCALE LARGE W/CU DIVERTOR COMPONENTS FOR FUSION REACTOR AT ASIPP	China
3147	Miaohui LI PROGRESS OF LOWER HYBRID CURRENT DRIVE EXPERIMENT TOWARDS LONG-PULSE OPERATION ON EAST	China
3148	Zhe Liang COUPLED PARTICLE-MHD SIMULATIONS OF INTERACTIONS BETWEEN EDGE LOCALIZED MODES AND NEUTRALS AND IMPURITIES USING JOREK CODE	China
3149	Umar F Ahmad ESTABLISHING AFRICAN FUSION ENERGY RESEARCH CONSORTIUM: CAPACITY BUILDING AND INNOVATION PATHWAY	Nigeria
3150	Miao Zhao DEVELOPMENT AND FUTURE PLAN OF THE NEGATIVE HYDROGEN ION SOURCES FOR NBI AT SWIP	China
3151	Chao Li EXTRACTING THE NEAREST CANONICAL EQUILIBRIUM DISTRIBUTION VIA NATURAL GRADIENT DESCENT METHOD	China
3152	Xingyu Bai Recent Experiments and Development of LHCD system on HL-3	China
3153	Yuhang Luo	China

	A Physics-Informed Neural Network for Real-Time, Data-Efficient Plasma Equilibrium Reconstruction in SUNIST-2	
3155	Lei-Yu Zhang Numerical study on power coupling and Impurity sputtering near an ICRF antenna	China
3156	Qijie Wang Preliminary design and development of neutron activation system on CN HCCB TBS	China
3157	Hiroyuki Yamaguchi A PROPOSED NEW EXPERIMENTAL STELLARATOR: VARIABLE SYMMETRY TORUS	Japan
3158	Jie Wang A New Eigenvalue Solver for Electrostatic Drift-Wave Instabilities in Tokamaks	China
3160	Guangzhou Hao MITIGATION OF ELM BY 3D MAGNETIC PERTURBATIONS IN HL-3/HL-2A TOKAMAKS	China
3161	zhihao zhao Investigation of transient transport dynamics induced by compact torus injection in the EAST tokamak	China
3162	Jiaxing Liu VALIDATION OF PLASMA -WALL SELF-ORGANIZATION THEORY BY HIGH DENSITY LIMITS ACHIEVED ON EAST	China
3163	Evgenii Gusakov LOW-THRESHOLD ABSOLUTE PARAMETRIC DECAY INSTABILITY IN X2-MODE ECRH EXPERIMENTS AND THE MISSING POWER EFFECT	Russia
3166	Zhifang Lin EXPERIMENTAL STUDY OF THE 2/1 MODE RMP ON THE RUNAWAY CURRENT SUPPRESSION DURING DISRUPTIONS ON J-TEXT	China
3167	Chengshuo Shen DECODING THE CAUSES OF HIGH-DENSITY DISRUPTION THROUGH INTERPRETABLE MACHINE LEARNING	China
3169	Hiroyasu Utoh Conceptual Design Study for Downsizing of Fusion DEMO Reactor	Japan
3171	Silvana NOWAK SAWTEETH DYNAMICS IN JT-60SA BASELINE SCENARIOS WITH EFFECTS ON NTM ONSET	Italy
3174	Antoine Hoffmann VALIDATION OF GKEYLL GYROKINETIC TURBULENCE SIMULATIONS AGAINST TCV EXPERIMENTAL DATA AND TRIANGULARITY PHYSICS	United States
3177	Shoichi Hatakeyama ENHANCED SURGE PROTECTIONS FOR DC ULTRA-HIGH VOLTAGE POWER SUPPLY FOR ITER NBI	Japan
3178	Zongyu Yang	China

3179	AUGMENTING THE EXTRAPOLATION CAPABILITY OF DISRUPTION PREDICTION TO EXTENDED PARAMETER REGIMES BY PREDICT-FIRST NEURAL NETWORK Xiang gU Design and Optimization of Advanced Divertor Configurations for Heat Flux Management in the EHL-2 Spherical Torus Project	China
3186	Linyun Liang Accelerating multiscale simulations of irradiated material properties using machine learning	China
3190	Arkady Serikov Radiation shielding analysis of IFMIF-DONES Test Cell and adjacent rooms	Germany
3192	Huayi Chang Kinetic modeling of tungsten transport induced by low-n X-point mode	China
3193	Chen Zhang SIMULATION OF DEUTERIUM-TRITIUM ISOTOPE EFFECTS ON THE DIVERTOR TARGET HEAT FLUX DENSITY IN CFEDR	China
3194	Jiming Chen R&D on W First Wall for ITER and Future Fusion Reactors	China
3195	Jian LIU SIMULATING ENERGETIC PARTICLE DYNAMICS USING OPERATOR NEURAL NETWORKS WITH SPATIAL TRANSLATION INVARIANCE	China
3197	Ken Kajiwara Completion of Manufacturing and Testing of 8 ITER Gyrotrons with its Auxiliary Systems	Japan
3198	Zhaoxi Chen Realization of direct internal recycling for DEMO fuel cycle based on a novel cryopump configuration	China
3199	Ting Long Experimental studies on the effect of turbulence-driven edge poloidal shear flow on tokamak plasma confinement	China
3201	Guoping YANG PROGRESS ON THE ENGINEERING QUALIFICATION OF CN-RAFM STEEL	China
3202	Julio Martinell Fast ion transport in presence of magnetic perturbations using full-orbit and guiding-center simulations	Mexico
3203	Jun Wang THE DEVELOPMENT OF 3D MHD CODE IN COMSOL MULTIPHYSICS AND ITS APPLICATION FOR MHD FLOW IN RIPPLED MAGNETIC FIELD	China
3204	RuYan Li	China

	Helium Cooled Ceramic Breeder Testing Blanket System Heat Release and Tritium Release for the ITER New Baseline DT-1 Scenario in the Port Cell	
3205	Xirui Liu Magnetic flux surface mapping system at Chinese First Quasi-axisymmetric Stellarator	China
3206	Neng Zhang Linear and?quasi-linear?toroidal modeling of resonant magnetic perturbations during ELMs mitigation in HL-3	China
3207	Y.F. Wang NATURAL SMALL ELMS ACHIEVED AT LOW PEDESTAL COLLISIONALITY (<1) IN A METAL WALL ENVIRONMENT ON EAST	China
3208	LI LI INFERNAL-KINK INSTABILITY IN NEGATIVE-TRIANGULARITY PLASMAS WITH NEGATIVE CENTRAL SHEAR	China
3209	June-Woo Juhn PROGRESS ON REAL-TIME DENSITY CONTROL CAPABILITY OF THE KSTAR TOKAMAK	Korea, Republic of
3210	Menghua Yang Ion Doppler Spectroscopy System on the SUNIST-2 Spherical Tokamak	China
3211	Qian Zou DYNAMICS OF TURBULENCE AND ZONAL FLOWS EFFECTED BY TUNGSTEN IMPURITY IN HL-2A EDGE PLASMAS	China
3212	Yiming Wang Achieving Full-Coverage Liquid GaInSn Film Flow under Magnetic Fields: Synergistic Effects of Wettability Optimization and Dual-Layer Structural Design	China
3213	Guoliang Yuan IN-SITU CALIBRATION OF NEUTRON FLUX MONITOR FOR HL-3 TOKAMAK	China
3214	Tsutomu Takahashi Self-Organized FRC Formation in Mirror Field Orthogonal to the Axis of Counter-Injected Plasmoids	Japan
3217	Hongran Zhou Design and Test of a Unified Modular Pulsed Power Supply for All Magnets of the Negative Triangularity Spherical Tokamak (NTST)	China
3218	Chijin Xiao TUNGSTEN DUST TRANSPORT IN THE STOR-M TOKAMAK	Canada
3219	Qi YANG High Intensity Neutron Source for Fusion Nuclear Technology Development	China
3221	Jiquan Li	China

3224	Transport properties of trapped-electron-mode turbulence interacting with tearing modes in tokamak plasmas Wei Tong	China
3225	Design and Testing of Quench Protection System for ITER Magnet Cold Test Bench chun yan Li	China
3226	Stellarator Plasma Start-up Model Based on Energy Confinement Time Scaling Laws, Experimental Verification and Numerical Simulation Results Pan Li	China
3227	TURBULENCE AND TRANSPORT DEPENDENCE ON TEMPERATURE RATIO WITH $TE/TI \sim 1-1.5$ IN EAST H-MODE PLASMA Eun-jin Kim	Korea, Republic of
3231	NOVEL EFFECTS OF EDGE-LOCALISED RMPS AND PLASMA DENSITY ON THE L-H TRANSITIONS AND TURBULENCE Bo HU	China
3232	SIMULATION OF HEAT EXCHANGER TUBE RUPTURE ACCIDENT FOR CN HCCB TBS roberto zanino	Italy
3233	The 4C code as a candidate tool for the qualified analysis of superconducting magnets in the licensing of nuclear fusion reactors Manni JIA	China
3236	DIVERTOR FLUX CONTROL BY RMP ELM SUPPRESSION AND RADIATIVE DIVERTOR OPERATION IN EAST H-MODE WITH TUNGSTEN PLASMA FACING COMPONENTS IN SUPPORT OF ITER NEW RESEARCH PLAN roberto zanino	Italy
3239	Development and validation of magneto-hydrodynamic turbulence models for the thermal-hydraulic design of ARC-class fusion reactor liquid blankets Lin Nie	China
3240	DESIGN AND CHALLENGE FOR ITER DIVERTOR LANGMUIR PROBE LIANSHENG HUANG	China
3248	Next-Generation Coil Power Supply System for the Tokamak: Design, Implementation, and Operational Performance Haishan Zhou	China
3252	COMMISSIONING OF THE CHINESE LARGEST SUPERCONDUCTING HIGH-FLUX LINEAR PLASMA DEVICE SWORD Jian Bao	China
3254	Kinetic modeling of interactions among drift-Alfven instability, continuous spectrum and energetic particle in fusion experiments Haoyu Wang	China

3256	Reinforcement Learning-Based Plasma Shape Control via Isoflux scheme on superconductor tokamak Tiago Pomella Lobo	Germany
3259	A novel Multi-Timescale strategy for Fusion Systems Codes and its impact to parametric analyses of Fusion Power Plants Yucai Li	China
3260	The role of ambient turbulence in facilitating thermal quench of disruptive plasmas in HL-2A tokamak Boris Bellesia	Fusion for Energy
3261	European ITER Vacuum Vessel procurement: the delivery of the first two sectors and overview of the overall production Mao Li	China
3263	SIMULATION OF EFFECT OF POLOIDAL INJECTION GEOMETRY ON LI-PELLET TRIGGERED ELM UNDER BOUT++ FRAMEWORK Ekaterina Sorokina	Russia
3264	Theoretical Model for the Experimentally Observed GAM's Satellites Baobao Jia	China
3266	AVERAGE MAGNETIC DRIFT MODEL FOR ION TEMPERATURE GRADIENT DRIVEN INSTABILITY IN TOKAMAKS Pengfei Liu	China
3267	Gyrokinetic simulations of pressure driven magnetohydrodynamic(MHD) instabilities in stellarator xin yu	China
3268	EFFECT OF IMPURITY DISTRIBUTION ON THE STABILITY OF NEOCLASSICAL TEARING MODE Victor Ilgisonis	Russia
3269	Nonlinear Self-Consistent Dynamics of Geodesic Acoustic Modes and Zonal Flows in Toroidally Rotating Tokamak Plasmas Rui Miguel Dias Alves Coelho	Portugal
3271	Alpha particle generation and confinement in D-3He scenarios in JT-60SA Anshu Liang	China
3273	CHARACTERISTICS OF EDGE QUASI-COHERENT MODE IN THE EDA H-MODE ON HL-3 Xiaojie Wang	China
3276	The development of millimeter-wave heating system towards CFEDR Yunhu Jia	China
3277	Plasma Instability Events Detection and Disruption Prediction in EAST Tokamak via Heterogeneous-Feature Multi-Task Learning Ibrahim Alrammah	Saudi Arabia
3278	Evaluating economic, environmental, and social impacts of adopting fusion energy in Saudi Arabia CHRISTIAN Bachmann	Italy

	Remote Handling Strategy of Volumetric Neutron Source Blanket	
3279	Shijie Shi Force-electric coupling characteristics of CORC cables under bending load	China
3283	Makoto Fukuda Development of ITER Divertor Outer Vertical Target	Japan
3286	Tengfei Sun PERTURBATED MAGNETIC FIELD THRESHOLD OF EDGE COHERENT OSCILLATION DURING ELM MITIGATION BY $N = 1$ AND $N=2$ RMP	China
3288	Yanjie Zhang THE RADIATIVE DIVERTOR AND IN/OUT ASYMMETRY IN HL-2M BY IMPURITY SEEDING WITH FULL DRIFTS	China
3291	Baolong Hao Demonstration of modelling and optimization in neutral beam heating and current drive with HL-3 parameters	China
3292	Taihao Huang Simulation study of the effect of impurities on the nonlinear dynamic process of Edge-Localized-Modes	China
3294	Zhang Chi, Qin Lang Experimental and Numerical Research on High-Temperature Superconducting Demountable Joints for Toroidal Field Coils of Tokamaks	China
3295	Zhaofan Wang CLUSTER DYNAMICS MODELING OF DEFECT EVOLUTION IN NEUTRON-IRRADIATED TUNGSTEN FOR FUSION APPLICATIONS	China
3296	Zeshi Gao DEUTERIUM GAS-DRIVEN PERMEATION AND RETENTION IN La_2O_3 , Y_2O_3 , AND ZrO_2 DISPERSION-STRENGTHENED TUNGSTEN	China
3297	Yahao Wu Experimental research on the penetration behavior of compact toroid fueling on EAST	China
3299	Qin Lang, Wu Run A Novel High-Temperature Superconducting Cable Design for Compact Tokamaks	China
3304	Wenyang Li THE RESEARCH OF THE STABILITY OF REVERSED SHEAR ALFVÉN EIGENMODES EXCITED BY ENERGETIC PARTICLES IN HL-2A	China
3307	zixin Zhang IMPACT OF NEUTRAL PARTICLES ON BEAM-ION LOSSES IN EAST TOKAMAK	China
3309	Guoliang XU Modeling of wall material evolution and the impact on edge particle recycling for long pulse discharges in EAST	China

3310	Long Li THE EFFECT OF W SURFACE FUZZ INDUCED BY HE PLASMA ON DEUTERIUM PERMEATION	China
3312	Zhe Liu EXPERIMENTAL STUDY ON THE MIGRATION PROCESS OF ADATOM IN THE GROWTH DYNAMIC OF FUZZ	China
3313	Jiafeng He DEVELOPMENT OF A THREE-DIMENSIONAL SIMULA- TION CODE FOR SCRAPE-OFF LAYER PLASMAS	China
3314	Chaofeng Sang Experimental and Simulation Study of Plasma Detachment in the Linear Plasma Device MPS-LD	China
3315	Jaymyoung Lee ACCESSING STABLE OPERATIONAL WINDOWS IN K- DEMO	Korea, Republic of
3316	Xuele Zhao THE INFLUENCE OF E×B DRIFT COMBINED WITH DIVER- TOR DOME ON PLASMA DETACHMENT IN CFETR BY US- ING SOLPS-ITER	China
3317	Xi Chen Experimental observation of zonal flow-like oscillation in Chi- nese first quasi-axisymmetric stellarator-test device	China
3318	Juana L Gervasoni CERMET ALLOYS FOR HYBRID FISSION-FUSION NU- CLEAR REACTOR	Argentina
3319	Jian Chen Experimental observation of streamer-like structure enhancing turbulent transport in scrape-off layer of HL-2A tokamak	China
3322	Zhengbo Cheng TEM0: a comprehensive and versatile equilibrium modelling toolbox for tokamak operations	China
3329	Martin STOREY INNOVATIVE AND EFFICIENT PLASMA MAGNETIC CON- FINEMENT METHOD BASED ON AN OVERLOOKED HIS- TORICAL DISCOVERY	Australia
3333	Yevgen Kazakov Insights from fast-ion physics studies on JET in support of JT- 60SA and ITER rebaseline	Belgium
3334	Yi Tan NTST, A NEGATIVE TRIANGULARITY SPHERICAL TOKA- MAK	China
3336	TianYuan Liu TURBULENCE-TRANSPORT COUPLING SIMULATION STUDY OF THE ELM DYNAMICS FROM HIGH RECYCLING ATTACHED REGIME TO IMPURITY SEEDED DETACH- MENT REGIME WITHIN EDGE PLASMA COUPLING SIMULATION (EPCS) FRAMEWORK	China
3338	Zhenhou Wang	China

	SIMULATION OF FUEL INVENTORY IN DAMAGED TUNGSTEN UNDER SIMULTANEOUS HYDROGEN AND DEUTERIUM: SYNERGISTICAL EFFECT OF DEFECT ANNEALING AND ISOTOPE EXCHANGE	
3339	Simon Pinches ENERGETIC PARTICLE DISTRIBUTIONS FOR QUANTITATIVE CALCULATIONS OF BURNING PLASMA STABILITY	ITER Organization
3342	Jiayi Zhang THE ESTABLISHMENT OF THE SYNTHETIC DIAGNOSTIC MODELING SPECIFICALLY FOR THE IMAGING NEUTRAL PARTICLE ANALYZER ON THE EAST	China
3344	Aleksei Li, Baurzhan Chektybayev PLASMA CURRENT AND POSITION CONTROL IN KTM TOKAMAK	Russia
3345	Stefano Coda Non-inductive high-performance discharges on TCV on the path to steady state	Switzerland
3347	Ivan Vargas-Blanco CHARACTERIZATION OF TURBULENT TRANSPORT OF PARTICLES, OPTIMIZATION OF PLASMA HEATING AND OPERATION CURRENT CONTROL IN THE COILS OF THE SCR-1 STELLARATOR	Costa Rica
3348	Leopoldo Soto FUSION STUDIES WITH SMALL AND TABLETOP PLASMA FOCUS DEVICES: INVESTIGATIONS ON NEW OPERATIONAL REGIMES, NON-EQUILIBRIUM THERMODYNAMICS, EXTREME MATERIAL CONDITIONS, AND BIOLOGICAL EFFECTS	Chile
3350	Yuefeng Qiu Challenges and Achievements in IFMIF-DONES Neutronics Activities	Germany
3351	Michele Romanelli PLASMA PREDICTION AND SIMULATION IN SUPPORT OF REACTOR DESIGN AND OPERATION AT TOKAMAK ENERGY	United Kingdom
3356	Shifeng MAO BOUT++ SIMULATION STUDY OF THE EFFECT OF RESONANT MAGNETIC PERTURBATION ON THE TURBULENCE TRANSPORT	China
3357	Anete Teimane Fusion-relevant tritium interactions with SS316L stainless steel	Latvia
3358	Andong Xu ANALYSIS OF FAST ION DISTRIBUTIONS USING NEUTRON EMISSION SPECTROSCOPY IN NBI-ICRF SYNERGISTIC HEATING PLASMA ON EAST	China
3365	Fan Feng HIGH-HEAT-FLUX PERFORMANCE OF MONOBLOCK TARGET PREPARED WITH ADVANCED W-K PLATE	China

3366	Y. X Wei THE INTERACTION BETWEEN THE EDGE DISLOCATION AND THE DISLOCATION LOOP-BUBBLE COMPLEX UN- DER SHEAR STRESS IN BCC IRON	China
3370	Igor Andreevich Sokolov PHYSICAL MODEL FOR TESTING STRUCTURAL MATERI- ALS OF FUSION REACTORS UNDER PLASMA AND THER- MAL IMPACT	Kazakhstan
3371	Yufan lv OVERALL PERFORMANCE OF THE HOUR-LEVEL ALTER- NATING HYBRID INTEGRATOR	China
3372	Wenhai Guan TOWARD THE DESIGN VALIDATION OF WATER-COOLED CERAMIC BREEDER TEST BLANKET MODULE IN PHYSI- CAL MOCK-UP TESTING	Japan
3374	Ernesto Lerche HEATING D IONS TO OPTIMAL D-T FUSION ENERGIES WITH ICRF WAVES	Belgium
3375	Siriaporn Sangaroon Progress And Developments In Advanced Diagnostics For Thailand Tokamak-1	Thailand
3376	XUEMING SHI CFETR NEUTRONICS BENCHMARK CROSSCHECKING USING JMCT	China
3378	Mikhail Polyanskii Safety Regulation of Fusion Facilities in the Russian Federation	Russia
3379	Jinguang Cai RECENT ADVANCES OF WATER DETRITIATION TECHONOLOGIES	China
3404	Jie Wang NON-EVAPORABLE GETTER APPLICATION IN FUSION REACTORS	China
3405	Alberto Loarte [REGULAR POSTER TWIN] CHANGE OF WALL MATE- RIAL FROM BERYLLIUM TO TUNGSTEN IN THE NEW ITER BASELINE: PHYSICS BASIS, IMPLICATIONS FOR RE- SEARCH PLAN AND WALL DESIGNS FOR ITS OPERA- TIONAL PHASES	ITER Organization
3406	Chang Hyun Noh [REGULAR POSTER TWIN] RECOVERY OF ITER SECTOR MODULES FROM CRITICAL ISSUES	ITER Organization
3407	Diego Marcuzzi [REGULAR POSTER TWIN] ACHIEVEMENT AT THE ITER NEUTRAL BEAM TEST FACILITY AND PROSPECTS FOR THE R&D ACTIVITIES WITHIN THE ITER RESEARCH PLAN	Italy
3408	Siwoo Yoon	Korea, Republic of

	[REGULAR POSTER TWIN] THE 2024 NEW BASELINE ITER RESEARCH PLAN	
3409	Jens Reich [REGULAR POSTER TWIN] ITER Core Machine Assembly Progress	ITER Organization
3411	Hugo Bufferand [REGULAR POSTER TWIN] Hierarchy of turbulent transport models with the SOLEDGE3X code	France
3412	Aaro Järvinen [REGULAR POSTER TWIN] GYROKINETIC SIMULATIONS OF A LOW RECYCLING SCRAPE-OFF LAYER WITHOUT A LITHIUM TARGET	United States
3413	Kevin Verhaegh [REGULAR POSTER TWIN] The physics basis for implementing Alternative Divertor Configurations on reactors	Netherlands
3414	Wladimir Zholobenko [REGULAR POSTER TWIN] Validated, global edge-SOL turbulence simulations in various ELM-free regimes	Germany
3415	Mireille SCHNEIDER [REGULAR POSTER TWIN] Integrated Modelling activities in support of the ITER re-baseline	France
3416	Carine Giroud [REGULAR POSTER TWIN] High performance ELM-free semi-detached scenario sustained at high-current in JET DTE3	United Kingdom
3419	Michael Dunne [REGULAR POSTER TWIN] The physics of ELM-free regimes in EUROfusion tokamaks	Germany
3420	Remi Dumont [REGULAR POSTER TWIN] WEST LONG-PULSE ACHIEVEMENTS IN SUPPORT OF NEXT-STEP FUSION DEVICES	France
3421	HYUNSEOK KIM [REGULAR POSTER TWIN] DEVELOPMENT OF HIGH-PERFORMANCE LONG-PULSE DISCHARGE IN KSTAR	Korea, Republic of
3422	Sebastian Bannmann [REGULAR POSTER TWIN] Attaining Tokamak level performance through plasma density profile shaping at Wendelstein 7-X	Germany
3424	Juan Huang [REGULAR POSTER TWIN] DEVELOPMENT OF STEADY-STATE OPERATION SCENARIOS WITH FULL TUNGSTEN LIMITER/DIVERTOR IN ITER-RELEVANT CONFIGURATION ON EAST	China
3425	Fuyuan Wu [REGULAR POSTER TWIN] Prediction of the implosion dynamics via AI enhanced simulations for the Double-Cone Ignition Scheme	China
3426	Jumpei Ogino	Japan

	[REGULAR POSTER TWIN] DEVELOPMENT OF INNOVATIVE REPEATABLE POWER LASER FOR LASER FUSION	
3427	Yasunobu Arikawa [REGULAR POSTER TWIN] HIGH GAIN FUSION BURNING IN INERTIAL CONFINEMENT FUSION PLASMA	Japan
3428	sebastien Le Pape [REGULAR POSTER TWIN] Foams as a Pathway to Energy from Inertial Fusion (FoPIFE): overview of recent results	France
3429	Nataliya Borisenko [REGULAR POSTER TWIN] TARGETS DEVELOPED IN THE 21ST CENTURY AT THE P.N. LEBEDEV PHYSICAL INSTITUTE OF RAS TO STUDY THE EXTREME MATTER PHYSICS USING HIGH-POWER LASER FACILITIES	Russia
3431	Long Zeng [REGULAR POSTER TWIN] Thermal quench dynamics and heat flux distribution during massive-impurity-injection triggered disruption in EAST	China
3434	Chang Liu [REGULAR POSTER TWIN] ANALYSIS AND SIMULATION OF EFFECTIVE RUNAWAY ELECTRON MITIGATION USING A PASSIVE COIL IN J-TEXT TOKAMAK	China
3437	Shaocheng Liu [REGULAR POSTER TWIN] FIRST EDGE-LOCALIZED MODE SUPPRESSION WITH LOWER HYBRID WAVES ON THE EAST TOKAMAK	China
3438	Jong Kyu Park [REGULAR POSTER TWIN] NEW UNDERSTANDING OF RESONANT LAYER RESPONSE VIA EXTENDED DRIFT MHD	Korea, Republic of
3441	Elizaveta Kaveeva [REGULAR TWIN POSTER] FIRST SOLPS-ITER WIDE GRID SIMULATIONS OF THE ITER BURNING PLASMA SCRAPE-OFF LAYER	Russia
3442	Elena Tonello [REGULAR TWIN POSTER] Modelling divertor solutions for power exhaust: in-depth experimental validation in TCV	Switzerland
3444	Carsten Killer [REGULAR TWIN POSTER] Drift flows impact island divertor operation in Wendelstein 7-X	Germany
3446	Dmitry Matveev [REGULAR TWIN POSTER] ANALYSIS OF FUEL RETENTION AND RECOVERY IN JET WITH BE-W WALL	Germany
3447	Gian Mario Polli [REGULAR TWIN POSTER] THE DIVERTOR TOKAMAK TEST FACILITY: MACHINE DESIGN, CONSTRUCTION AND COMMISSIONING	Italy
3448	Valerie LAMAISON	France

	[REGULAR TWIN POSTER] WEST OPERATION “ RELIABILITY AND AVAILABILITY OF A LONG PULSE FUSION TOKAMAK	
3449	Selanna Roccella [REGULAR TWIN POSTER] Design and qualification activity of the first divertor of the DIVERTOR TOKAMAK TEST FACILITY	Italy
3450	Marianne Richou [REGULAR TWIN POSTER] ACTIVELY COOLED PLASMA FACING COMPONENTS DESIGN FOR W7-X AND JT-60SA IN SUPPORT OF THE ITER DIVERTOR	France
3452	Juan Du [REGULAR TWIN POSTER] PERFORMANCE EVALUATION OF TUNGSTEN FIBER-REINFORCED TUNGSTEN COMPOSITES DEVELOPED AT SWIP FOR APPLICATION IN NUCLEAR FUSION REACTORS	China
3453	Nobuyuki AIBA [REGULAR TWIN POSTER] H-mode operation scenarios in JT-60SA initial research phase predicted by integrated core-pedestal-SOL/divertor simulation	Japan
3454	Hendrik Meyer [REGULAR TWIN POSTER] UK STEP TOWARDS A FUSION POWER PLANT PLASMA	United Kingdom
3455	Daniel Kennedy [REGULAR TWIN POSTER] A TALE OF TWO (VISCO)CITIES Electromagnetic Turbulence and Transport Bifurcations: Implications for Next- Generation Fusion Power Plants	United Kingdom
3457	Rui Zhao [REGULAR TWIN POSTER] GLOBAL DISPERSION AND NONLINEAR DYNAMICS IN PLASMAS MODELED FOR JT-60U STRONGLY REVERSED MAGNETIC SHEAR CONFIGURATION EXHIBITING A SIGNATURE OF ITBS FROM L-MODE CHARACTERISTICS	Japan
3459	Yuya Morishita [REGULAR TWIN POSTER] DEVELOPMENT OF DATA ASSIMILATION SYSTEM ASTI TOWARD DIGITAL TWIN CONTROL OF FUSION PLASMA	Japan
3460	Stefan Jachmich [REGULAR TWIN POSTER] ITER DISRUPTION MITIGATION SYSTEM DESIGN AND APPLICATION STRATEGY	ITER Organization
3461	Anatoly Krasilnikov [REGULAR TWIN POSTER] TRT PLASMA CONTROL COMPLEXES CONCEPTUAL DESIGN ON THE BASE OF THE ITER FUSION TECHNOLOGY DEVELOPMENT	Russia
3463	Takuma Wakatsuki [REGULAR TWIN POSTER] Development of Low Inductive Electric Field Plasma Start-up in JT-60SA	Japan

3464	Hyun-Tae Kim [REGULAR TWIN POSTER] MULTI-MACHINE VALIDATION OF PLASMA INITIATION MODELLING AND PROSPECTS FOR FUTURE DEVICES	United Kingdom
3465	Toshiki Kinoshita [REGULAR TWIN POSTER] DIRECT CONTROL OF TURBULENCE FOR IMPROVED PLASMA CONFINEMENT	Japan
3466	Shizuo Inoue [REGULAR TWIN POSTER] DEVELOPMENT OF EQUILIBRIUM CONTROL SIMULATOR AND EXPERIMENTAL VALIDATION OF ADVANCED ISO-FLUX EQUILIBRIUM CONTROL DURING THE FIRST OPERATIONAL PHASE OF JT-60SA	Japan
3467	Matteo Baruzzo [REGULAR TWIN POSTER] PLASMA CONTROL EXPERIMENTS IN JET DEUTERIUM-TRITIUM PLASMAS	Italy
3469	JIALEI Wang [REGULAR TWIN POSTER] Comprehensive Simulations of Bursting and Non-Bursting Alfvén Waves in ICRF Heated Tokamak Plasmas	Japan
3470	Axel Könies [REGULAR TWIN POSTER] Turbulence, zonal flows, and global modes in burning plasmas: code development and simulations	Germany
3471	Fulvio Zonca [REGULAR TWIN POSTER] THEORY AND SIMULATION OF PHASE SPACE TRANSPORT IN BURNING PLASMAS	Italy
3472	Sergei Sharapov [REGULAR TWIN POSTER] FUSION ALPHA-PARTICLE-DRIVEN ALFVEN EIGENMODES IN JET DT PLASMAS: EXPERIMENTS AND THEORY	United Kingdom
3473	Guoliang Xiao [REGULAR TWIN POSTER] Advancing Tritium Fueling for DT Fusion in HL-3: Innovations in SMBI Techniques and Physics-Based Tritium Fueling Strategies	China
3474	Di Hu [REGULAR TWIN POSTER] JOREK simulation of injection assimilation and radiation asymmetry during ITER H-mode dual SPIs	China
3475	Hannes Bergström [REGULAR TWIN POSTER] Hybrid kinetic-MHD studies of runaway electron beam termination events	Germany
3476	Jose Luis Velasco Garasa [REGULAR TWIN POSTER] Piecewise omnigenous fields: a radically new family of optimized magnetic fields for stellarator reactors	Spain
3477	Yeongsun Lee	Korea, Republic of

	[REGULAR TWIN POSTER] MODELLING OF MILDLY RELATIVISTIC RUNAWAY ELECTRONS –“DEVELOPMENT OF REDUCED-KINETIC MODEL AND VALIDATION IN KSTAR OHMIC STARTUP	
3478	Caoxiang Zhu [REGULAR TWIN POSTER] A novel method to optimize omnigenity like quasisymmetry for stellarators	China
3479	IOLE PALERMO [REGULAR TWIN POSTER] OVERVIEW OF THE DCLL BREEDING BLANKET FOR HELIAS 5-B AND FURTHER STEPS TOWARDS A NOVEL QI DEVICE	Spain
3480	Elodie Bernard [REGULAR TWIN POSTER] ANTICIPATING TRITIUM IMPACT AND TRANSFER IN FISSION AND FUSION POWER-PLANTS	France
3481	Rosaria Villari [REGULAR TWIN POSTER] NEUTRONICS FOR ITER NUCLEAR PHASE: INSIGHTS AND LESSONS LEARNT FROM JET DT OPERATION	Italy
3482	Yi-Hyun PARK [REGULAR TWIN POSTER] EXPERIMENTAL STUDY ON TRITIUM RELEASE FROM Li_2TiO_3 PEBBLES AS TRITIUM BREEDER THROUGH INTERNATIONAL COLLABORATION BETWEEN KOREA AND CHINA	Korea, Republic of
3483	Tomoya Akagi [REGULAR TWIN POSTER] Accomplishment of high duty cycle beam commissioning of Linear IFMIF Prototype Accelerator (LIPAc) at 5 MeV, 125 mA D+	Japan
3485	Henri Kumpulainen [REGULAR TWIN POSTER] Simulation of tungsten erosion and edge-to-core transport in neon-seeded JET plasmas	Germany
3486	Daniel Fajardo [REGULAR TWIN POSTER] Theory-based integrated modelling of tungsten transport: validation in present-day tokamaks and predictions for ITER	Germany
3487	yann corre [REGULAR TWIN POSTER] TESTING TUNGSTEN PLASMA FACING COMPONENTS IN WEST AND AUG TOKAMAKS : LESSONS FOR ITER	France
3489	Jörg Hobirk [REGULAR TWIN POSTER] Tungsten limiter Start-up experiments in different boronization states in support of ITER	Germany
3490	Hibiki Yamazaki [REGULAR TWIN POSTER] RESULTS OF ELECTRON CYCLOTRON HEATING AND CURRENT DRIVE SYSTEM OPERATION IN THE INTEGRATED COMMISSIONING PHASE ON JT-60SA	Japan
3491	Takahiro Shinya	Japan

3492	[REGULAR TWIN POSTER] First performance test of multi-frequency gyrotron for ITER and fusion devices Katsuhiko TSUCHIYA	Japan
3493	[REGULAR TWIN POSTER] PERFORMANCE OF JT-60SA SUPERCONDUCTING MAGNET OPERATION IN INTEGRATED COMMISSIONING TEST Robert Skilton	United Kingdom
3494	[REGULAR TWIN POSTER] OVERVIEW OF RECENT RESULTS IN RESEARCH TACKLING REMOTE MAINTENANCE CHALLENGES OF FUTURE FUSION ENERGY DEVICES Yuhong Xu	China
3498	[REGULAR TWIN POSTER] Construction Progress of Chinese First Quasi-axisymmetric Stellarator (CFQS) and Preliminary Results in the CFQS-Test Device Lorenzo Frassinetti	Sweden
3499	[REGULAR TWIN POSTER] Peeling limited pedestals in JET, MAST-U and TCV: effect of density and isotope mass in deuterium and tritium-rich plasma on pedestal structure and stability and validation of pedestal predictions for ITER. Costanza Maggi	United Kingdom
3501	[REGULAR TWIN POSTER] CORE AND EDGE TRANSPORT OF SCENARIO WITH INTERNAL TRANSPORT BARRIER IN TRITIUM AND DEUTERIUM-TRITIUM PLASMAS IN JET WITH BE/W WALL Youngmu Jeon	Korea, Republic of
3502	[REGULAR TWIN POSTER] DEVELOPMENT OF HIGH POLOIDAL BETA SCENARIO FOR LONG-PULSE OPERATION IN COLLABORATION BETWEEN DIII-D AND KSTAR Hidenobu Takenaga	Japan
3503	[REGULAR TWIN POSTER] Fusion research and development strategy for JA DEMO investigated in QST Howard Wilson	United Kingdom
3504	[REGULAR TWIN POSTER] STEP: Driving a pathway to accelerated fusion delivery Felix Warmer	Germany
3505	[REGULAR TWIN POSTER] Towards a Stellarator Fusion Reactor: Achievements of the European Stellarator Program Nicolas Lopez	United Kingdom
3506	[REGULAR TWIN POSTER] Tokamak Energy's high temperature superconducting magnet spherical tokamak fusion pilot plant concept JAE MIN Kwon	Korea, Republic of
3507	[REGULAR TWIN POSTER] Establishment and Progress of Korean Fusion Reactor Design Activities: A Coordinated National Approach Yanzeng Zhang	China
3508	Plasma parallel transport physics in a tokamak thermal quench XINGHUA WU	China

3509	Godwin Okewu Omeje Preliminary Engineering Analysis for CN HCCB TBM Regarding ITER New Baseline Scenario NEXT-GENERATION NUCLEAR TECHNOLOGIES FOR NET-ZERO EMISSIONS: AN INTERDISCIPLINARY EVALUATION OF NUCLEAR FUSION	United Kingdom
3512	Jipeng Zhu Surface damage and deuterium retention in tungsten under high-flux detached recombining linear plasmas	China
3513	Renjin Xiong Highly effective hydrogen isotope separation through quantum sieving	China
3514	Zhifei Li Experimental Detection of Charged Fusion Products in a Compact Electron-Catalyzed Fusion System Using Calibrated CR-39 Diagnostics	United States
3518	Yang Li Predictive Modeling of Operational Stability in RF Negative Ion Sources Based on Experimental Parameters	China
3521	Jiaqi Zhang Numerical Simulation of Compositional Redistribution Driven by isotopologue Fractionation During Solidification of D-T Fuel in ICF Targets	Japan
3523	Hiroaki Ohtani IMMERSIVE VR-BASED VISUALIZATION AND ANALYSIS OF FUSION PLASMAS USING DIGITAL-LHD AND VIRTUAL-LHD	Japan
3525	Didier Mazon OVERVIEW OF THE WEST-ITER DIAGNOSTIC INSTRUMENTATION (WIDIA) COLLABORATION ACTIVITIES	France
3527	Emanuele massarelli Advanced Power Supply solutions Meeting High Standard for Fusion Research	Italy
3529	ZhiHao Tao Achieving Equilibrium in FRCs: A Self-Consistent Free-Boundary Approach Validated Across High-Beta Regimes	China
3531	Falk Braunmüller High-power stray radiation experiments for the ITER Upper Launcher with a real-size mock-up - First results	Switzerland
3532	Juana Gervasoni TITANIUM ADDITION AND THICKNESS VARIATION RESEARCH IN TUNGSTEN BLOCK BEHAVIOR AS FUSION PLASMA FACING FIRST WALL	Argentina
3533	Peipei Wang Investigation of Broadband-laser-induced Plasma Interaction and ablation properties	China
3535	Yue Yu	China

	Enabling Adaptive Detachment Control: Novel Insights from Calibration-Free X-Point Phase Difference	
3536	Zhifang Lin EFFECTS OF THE MULTI-MODE ISLANDS ON THE RUN-AWAY ELECTRON SUPPRESSION ON J-TEXT	China
3537	Yiqiang Wang MULTI-SCALE AND MULTI-DIMENSIONAL RESIDUAL STRESS AND ITS ROLES ON STRUCTURAL INTEGRITY FOR FUSION IN-VESSEL COMPONENTS	United Kingdom
3538	Mario Raeth NON-GYROKINETIC HIGH-FREQUENCY MODE INSTABILITY FOR TOKAMAK EDGE LIKE GRADIENTS	Germany
3539	Guosheng Xu [REGULAR TWIN POSTER] LONG-PULSE ELM-FREE H-MODE REGIME WITH FEEDBACK-CONTROLLED DETACHMENT UNDER BORONIZED METAL WALL IN EAST	China
3545	Katsumi Ida [REGULAR TWIN POSTER] OBSERVATION OF CORE ION ENERGY INCREASE CAUSED BY THE LANDAU DAMPING OF MHD WAVE IN THE PERIPHERY OF LHD PLASMA	Japan
3546	Tilmann Lunt [REGULAR TWIN POSTER] FIRST CAMPAIGN WITH ALTERNATIVE DIVERTOR CONFIGURATIONS IN ASDEX UP-GRADE	Germany

SYSTEM ARCHITECTURE FOR ACTUATOR MANAGEMENT IN ITER PCS

Ondrej Kudlacek

Ondrej Kudlacek (Max-Planck Institute of Plasma Physics), Germany

Corresponding Author: Ondrej Kudlacek, *OndrejKudlacek* < *ondrej.kudlacek@ipp.mpg.de* >

IAEA-CN-316-2619

Materials: via Indico sever:



Fusion Twin Platform: An Innovative Tool for Fusion Research and Education

Alexei Zhurba

Alexei Zhurba (Next Step Fusion), Luxembourg

Corresponding Author: Alexei Zhurba, *AlexeiZhurba* < *akz@nextfusion.org* >

IAEA-CN-316-2620

Materials: via Indico sever:



Neutron-Physical Characteristics of Blanket of Hybrid Fusion Neutron Source based on Solution of Thorium Nitrate and Minor Actinides in Heavy Water

Alexey Zhirkin

Alexey Zhirkin (NRC Kurchatov Institute), Russia

Corresponding Author: Alexey Zhirkin, *AlexeyZhirkin* <zhirkin_av@nrcki.ru>

IAEA-CN-316-2621

Materials: via Indico sever:



Performance Optimisation of Tokamak Operation in ASDEX Upgrade Through Novel Feedback Control Capabilities

Wolfgang Treutterer

Wolfgang Treutterer (Max-Planck Institute for Plasma Physics), Germany

Corresponding Author: Wolfgang Treutterer, *WolfgangTreutterer* < *wolfgang.treutterer@ipp.mpg.de* >

IAEA-CN-316-2623

Materials: via Indico sever:



Runaway electron avalanche and energy deposition during scraping-off of vertically unstable disruption generated runaway beams

Jose Martin-Solis

Jose Martin-Solis (Universidad Carlos III de Madrid), Spain

Corresponding Author: Jose Martin-Solis, *JoseMartin – Solis* < *solis@fis.uc3m.es* >

IAEA-CN-316-2626

Materials: via Indico sever:



ACTIVE TEARING MODE AVOIDANCE WITH MACHINE LEARNING CONTROLLERS

Andrew Rothstein

Andrew Rothstein (Princeton University), United States

Corresponding Author: Andrew Rothstein, *AndrewRothstein* < *arothstein@princeton.edu* >

IAEA-CN-316-2628

Materials: via Indico sever:



USE OF SHIELDING BENCHMARK EXPERIMENT DATABASE (SINBAD) TO IDENTIFY NUCLEAR DATA STATUS AND GUIDE FUTURE EXPERIMENTAL ACTIVITIES

Ivan Kodeli

Ivan Kodeli (UKAEA, CCFE), United Kingdom

Corresponding Author: Ivan Kodeli, *IvanKodeli* < *ivan.kodeli@ukaea.uk* >

IAEA-CN-316-2633

Materials: via Indico sever:



Impurity Accumulation and Radiation Dynamics in advanced Scenarios in W7-X

Daihong Zhang

Daihong Zhang, Germany

Corresponding Author: Daihong Zhang, *DaihongZhang* < *daihong.zhang@ipp.mpg.de* >

IAEA-CN-316-2634

Materials: via Indico sever:



Global eigenmode structure of linear drift-wave instabilities on flux surfaces in stellarators

Hongxuan Zhu

Hongxuan Zhu (Princeton University), United States

Corresponding Author: Hongxuan Zhu, *HongxuanZhu* <*hongxuan@princeton.edu*>

IAEA-CN-316-2635

Materials: via Indico sever:



STATUS OF DD DEVELOPMENT OF A TRITIUM FUEL CYCLE FOR LONG-TERM TOKAMAK OPERATION

sergey ananyev

sergey ananyev (nrc Kurchatov institute), Russia

Corresponding Author: sergey ananyev, *sergeyananyev* <*ananevss@gmail.com*>

IAEA-CN-316-2639

Materials: via Indico sever:



ELIMINATING TOKAMAK MAJOR DISRUPTIONS WITH FEEDBACK

Henry Strauss

Henry Strauss (HRS Fusion), United States

Corresponding Author: Henry Strauss, *HenryStrauss* < *hank@hrsfusion.com* >

IAEA-CN-316-2640

Materials: via Indico sever:



Advanced Magnetic Plasma Control Enabled by Reinforcement Learning

Georgy Subbotin

Georgy Subbotin (Next Step Fusion), Luxembourg

Corresponding Author: Georgy Subbotin, *GeorgySubbotin* < *subbotingf@gmail.com* >

IAEA-CN-316-2645

Materials: via Indico sever:



Reconstructing the Plasma Boundary with a Reduced Set of Diagnostics

Maxim Nurgaliev

Maxim Nurgaliev (Next Step Fusion), Luxembourg

Corresponding Author: Maxim Nurgaliev, *MaximNurgaliev* <mn@nextfusion.org >

IAEA-CN-316-2653

Materials: via Indico sever:



NEOCLASSICAL THEORY ON LOW FREQUENCY DRIFT ALFVÉN WAVES

Yang Li

Yang Li (Southwestern Institute of Physics), China

Corresponding Author: Yang Li, *YangLi* < *leeyangfusion@qq.com* >

IAEA-CN-316-2657

Materials: via Indico sever:



How the tail wags the dog: physics of edge-core coupling by inward turbulence propagation

Mingyun Cao

Mingyun Cao (University of California, Los Angeles), United States

Corresponding Author: Mingyun Cao, *MingyunCao* < *mcao@physics.ucla.edu* >

IAEA-CN-316-2660

Materials: via Indico sever:



CSMC Power Supply System Completes DC 48kA Steady State Output Experiment

Hong Lei

Hong Lei, China

Corresponding Author: Hong Lei, *HongLei* < *redlei@ipp.ac.cn* >

IAEA-CN-316-2662

Materials: via Indico sever:



The benchmark database of experiments, nuclear, and technological data for hybrid fusion systems with various types of blankets

Mikhail Shlenskii

Mikhail Shlenskii, Russia

Corresponding Author: Mikhail Shlenskii, *MikhailShlenskii* < *mike.shlenskii@gmail.com* >

IAEA-CN-316-2664

Materials: via Indico sever:



Overview of Wendelstein 7-X high-performance operation

Olaf Grulke

Olaf Grulke (MPI for Plasma Physics), Germany

Corresponding Author: Olaf Grulke, *Olaf Grulke* < grulke@ipp.mpg.de >

IAEA-CN-316-3257

Materials: via Indico sever:



OBSERVATION AND CONTROL OF 3D HEAT FLUX ON THE PLASMA FACING COMPONENT IN WENDELSTEIN 7-X

Yu Gao

Yu Gao (Max-Planck-Institute for Plasma Physics, Greifswald, Germany), Germany

Corresponding Author: Yu Gao, *YuGao* < *yu.gao@ipp.mpg.de* >

IAEA-CN-316-2668

Materials: via Indico sever:



Enabling Advanced Plasma Shapes on MAST-U Spherical Tokamak

Andrey Lvovskiy

Andrey Lvovskiy (General Atomics), United States

Corresponding Author: Andrey Lvovskiy, *AndreyLvovskiy* <*lvovskiya@fusion.gat.com*>

IAEA-CN-316-2671

Materials: via Indico sever:



Modelling of H-mode EAST edge plasma with impurity seeding by SOLPS-ITER 3.2.0 on wide grid

Ilya Senichenkov

Ilya Senichenkov (Peter the Great Saint Petersburg Polytechnic University), Russia

Corresponding Author: Ilya Senichenkov, *Ilya.Senichenkov* <*i.senichenkov@spbstu.ru*>

IAEA-CN-316-2672

Materials: via Indico sever:



**PHYSICS BASIS OF DISCREPANCIES BETWEEN
TEMPERATURE MEASUREMENTS BY ECE AND THOMSON
SCATTERING IN HIGH PERFORMANCE PLASMAS ON JET,
EAST AND DIII-D**

Francesco Orsitto

Francesco Orsitto, Italy

Corresponding Author: Francesco Orsitto, *FrancescoOrsitto* < *fporsitto@gmail.com* >

IAEA-CN-316-2673

Materials: via Indico sever:



USE OF NUCLEAR SPECTROMETRY TO MONITOR FUSION RATE, FAST PARTICLES AND RUNAWAY ELECTRONS IN TOKAMAK PLASMAS

Aleksandr Shevelev

Aleksandr Shevelev (Ioffe Institute), Russia

Corresponding Author: Aleksandr Shevelev, *AleksandrShevelev* < *shevelev@cycla.ioffe.ru* >

IAEA-CN-316-2677

Materials: via Indico sever:



JOREK simulation of injection assimilation and radiation asymmetry during ITER H-mode dual SPIs

Di Hu

Di Hu (Beihang University), China

Corresponding Author: Di Hu, *DiHu* <*hudi2@buaa.edu.cn*>

IAEA-CN-316-2678

Materials: via Indico sever:



RECENT ADVANCES IN PLASMA CONTROL AND PHYSICS RESEARCH IN THE LARGE HELICAL DEVICE

Kenji Tanaka

Kenji Tanaka (National Institute for Fusion Science), Japan

Corresponding Author: Kenji Tanaka, *KenjiTanaka* < *tanaka.kenji@nifs.ac.jp* >

IAEA-CN-316-2806

Materials: via Indico sever:



10-HZ-INJECTION AT A LASER FOCUS OF TARGETS ACCELERATED INTO SPRING-HTSC-MAGLEV SYSTEM

Elena Koresheva

Elena Koresheva (P.N.Lebedev Physical Institute of Russian Academy of Sciences (LPI)), Russia

Corresponding Author: Elena Koresheva, *ElenaKoresheva* < *elena.koresheva@gmail.com* >

IAEA-CN-316-2680

Materials: via Indico sever:



THE STUDY OF ALFVÄN EIGENMODES ON THE SPHERICAL TOKAMAK GLOBUS-M2 USING DOPPLER BACKSCATTERING

Anna Ponomarenko

Anna Ponomarenko (Peter the Great St.Petersburg Polytechnic University (SPbPU)), Russia

Corresponding Author: Anna Ponomarenko, *AnnaPonomarenko* < *annap2000dreeonn@gmail.com* >

IAEA-CN-316-2681

Materials: via Indico sever:



FIRST RESULTS OF EHO-LIKE FLUCTUATIONS STUDIES AT THE SPHERICAL TOKAMAK GLOBUS-M2

Alexander Yashin

Alexander Yashin (Peter the Great St.Petersburg Polytechnic University), Russia

Corresponding Author: Alexander Yashin, *AlexanderYashin* < *alex_yashin@list.ru* >

IAEA-CN-316-2682

Materials: via Indico sever:



Research on the relationship between microstructure and mechanical properties of CHSN01 jacket under cold deformation

Yifei Wu

Yifei Wu (Hefei Institutes of Physical Science, Chinese Academy of Sciences), China

Corresponding Author: Yifei Wu, *YifeiWu* <*yifei.wu@ipp.ac.cn*>

IAEA-CN-316-2686

Materials: via Indico sever:



QUANTITATIVE EVALUATION OF BEAM LOSS BASED ON RADIATION DETECTION IN HIGH-DUTY BEAM COMMISSIONING OF LIPAC RFQ

Kohki Kumagai

Kohki Kumagai (QST), Japan

Corresponding Author: Kohki Kumagai, *KohkiKumagai* < *kumagai.kohki@qst.go.jp* >

IAEA-CN-316-2688



Materials: via Indico sever:

Development of Low Inductive Electric Field Plasma Start-up in JT-60SA

Takuma Wakatsuki

Takuma Wakatsuki (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Takuma Wakatsuki, *TakumaWakatsuki* < *wakatsuki.takuma@qst.go.jp* >

IAEA-CN-316-2689

Materials: via Indico sever:



DISRUPTIONS AND MHD INSTABILITIES OBSERVED IN THE INITIAL OPERATION PHASE OF JT-60SA

Tatsuya Yokoyama

*Tatsuya Yokoyama (Naka Institute, National Institutes for Quantum and Radiological Science and
Technology), Japan*

Corresponding Author: Tatsuya Yokoyama, *TatsuyaYokoyama* < *yokoyama.tatsuya@qst.go.jp* >

IAEA-CN-316-2690

Materials: via Indico sever:



Effect of edge-localized mode simulation on detached plasma in the divertor simulation experimental module of GAMMA 10/PDX

Masayuki Yoshikawa

Masayuki Yoshikawa (University of Tsukuba), Japan

Corresponding Author: Masayuki Yoshikawa, *MasayukiYoshikawa* < *yosikawa@prc.tsukuba.ac.jp* >

IAEA-CN-316-2691

Materials: via Indico sever:



CHARACTERISTICS OF RUNAWAY ELECTRON LOSS IN THE INTEGRATED COMMISSIONING OF JT-60SA

Shuhei Sumida

Shuhei Sumida (National Institutes for Quantum Science and Technology, Naka, Ibaraki, Japan), Japan

Corresponding Author: Shuhei Sumida, *ShuheiSumida* < *sumida.shuhei@qst.go.jp* >

IAEA-CN-316-2692

Materials: via Indico sever:



RESULTS OF ELECTRON CYCLOTRON HEATING AND CURRENT DRIVE SYSTEM OPERATION IN THE INTEGRATED COMMISSIONING PHASE ON JT-60SA

Hibiki Yamazaki

Hibiki Yamazaki (National Institutes for Quantum Science and Technology (QST)), Japan

Corresponding Author: Hibiki Yamazaki, *HibikiYamazaki* < yamazaki.hibiki@qst.go.jp >

IAEA-CN-316-2693

Materials: via Indico sever:



Development of in-vessel rail deployment and connection method for ITER Blanket remote maintenance

Yuto NOGUCHI

Yuto NOGUCHI (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Yuto NOGUCHI, *YutoNOGUCHI* < *noguchi.yuto@qst.go.jp* >

IAEA-CN-316-2694

Materials: via Indico sever:



Development of pure boron pellet for fusion reactor

Hiroyuki Noto

Hiroyuki Noto (National Institutes for Fusion Science), Japan

Corresponding Author: Hiroyuki Noto, *HiroyukiNoto* < *noto.hiroyuki@nifs.ac.jp* >

IAEA-CN-316-2695

Materials: via Indico sever:



Regime of Electron Internal Transport Barrier in High-Density NBI Heated Plasmas of Heliotron J

Shinji Kobayashi

Shinji Kobayashi (IAE, Kyoto Univ.), Japan

Corresponding Author: Shinji Kobayashi, *ShinjiKobayashi* <*kobayashi@iae.kyoto-u.ac.jp*>

IAEA-CN-316-2696

Materials: via Indico sever:



Experimental identification of coexisting local and non-local turbulence

Naoki Kenmochi

Naoki Kenmochi (National Institute for Fusion Science), Japan

Corresponding Author: Naoki Kenmochi, *NaokiKenmochi* < *kenmochi.naoki@nifs.ac.jp* >

IAEA-CN-316-2697

Materials: via Indico sever:



Frequency Hysteresis of MHD Instabilities in Helical and Tokamak Plasmas

Yuki Takemura

Yuki Takemura (National Institute for Fusion Science), Japan

Corresponding Author: Yuki Takemura, *YukiTakemura* < *takemura.yuki@nifs.ac.jp* >

IAEA-CN-316-2698

Materials: via Indico sever:



Automated design rationalization of robot component configuration for in-vessel task of ITER Blanket Remote Handling System

Takuya Iwamoto

Takuya Iwamoto (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Takuya Iwamoto, *TakuyaIwamoto* < *iwamoto.takuya@qst.go.jp* >

IAEA-CN-316-2699

Materials: via Indico sever:



Comprehensive Simulations of Bursting and Non-Bursting Alfvén Waves in ICRF Heated Tokamak Plasmas

JIALEI Wang

JIALEI Wang (National Institute for Fusion Science), Japan

Corresponding Author: JIALEI Wang, *JIALEIWang* < wang.jialei@nifs.ac.jp >

IAEA-CN-316-2700

Materials: via Indico sever:



DESIGN OF THE ELECTRON CYCLOTRON HEATING EXPANSION SYSTEM ON EAST

Weiye Xu

Weiye Xu (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Weiye Xu, *WeiyeXu* < *xuweiyu@ipp.cas.cn* >

IAEA-CN-316-2701

Materials: via Indico sever:



Effect of ECH on Energetic-Particle-Driven MHD Modes in Heliotron J

Kazunobu Nagasaki

Kazunobu Nagasaki (Institute of Advanced Energy, Kyoto University), Japan

Corresponding Author: Kazunobu Nagasaki, *KazunobuNagasaki* < *nagasaki@iae.kyoto-u.ac.jp* >

IAEA-CN-316-2702

Materials: via Indico sever:



First performance test of multi-frequency gyrotron for ITER and fusion devices

Hibiki Yamazaki

Hibiki Yamazaki, Japan

Corresponding Author: Hibiki Yamazaki, *HibikiYamazaki* < *yamazaki.hibiki@qst.go.jp* >

IAEA-CN-316-2703

Materials: via Indico sever:



Progress on nonlinear MHD modeling of \tilde{r} -flux pumping and hybrid scenario for ASDEX Upgrade plasmas

Haowei Zhang

Haowei Zhang (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Haowei Zhang, *HaoweiZhang* < haowei.zhang@ipp.mpg.de >

IAEA-CN-316-2705

Materials: via Indico sever:



MEASUREMENT OF NUCLEAR REACTION CROSS-SECTION FOR THERMONUCLEAR APPLICATIONS

Marina Bikchurina

Marina Bikchurina (Budker Institute of Nuclear Physics), Russia

Corresponding Author: Marina Bikchurina, *MarinaBikchurina* < *m.i.bikchurina@inp.nsk.su* >

IAEA-CN-316-2706

Materials: via Indico sever:



Observation of non-collisional ion heating in helical plasmas under dominant electron heating condition by neutral beam injection on LHD

Kazuo Toi

Kazuo Toi (National Institute for Fusion Science, Toki, Japan), Japan

Corresponding Author: Kazuo Toi, *KazuoToi* < *toi.kazuo@toki-fs.jp* >

IAEA-CN-316-2707

Materials: via Indico sever:



Verification of energetic and angular distributions of nuclear fusion products in plasmas

Alexander Yashin

Alexander Yashin (Peter the Great St. Petersburg Polytechnic University), Russia

Corresponding Author: Pavel Goncharov, *PavelGoncharov* <*p.goncharov@spbstu.ru*>

IAEA-CN-316-2708

Materials: via Indico sever:



Prediction of the implosion dynamics via AI enhanced simulations for the Double-Cone Ignition Scheme

Fuyuan Wu

Fuyuan Wu (Shanghai Jiao Tong University), China

Corresponding Author: Fuyuan Wu, *FuyuanWu* < *fuyuan.wu@sjtu.edu.cn* >

IAEA-CN-316-2709

Materials: via Indico sever:



Dynamic Evolution of Multi-Physics-Dependent Non-Uniform Inter-Turn Contact Resistivity in No-Insulation REBCO Magnets: Modeling and Experimental Validation

Shuowei Gao

Shuowei Gao, China

Corresponding Author: Shuowei Gao, *ShuoweiGao* < *shuowei.gao@ipp.ac.cn* >

IAEA-CN-316-2710

Materials: via Indico sever:



Experimental study on configuration dependence of turbulent transport on LHD

Kenichi Nagaoka

Kenichi Nagaoka (National Institute for Fusion Science), Japan

Corresponding Author: Kenichi Nagaoka, *KenichiNagaoka* < *nagaoka@nifs.ac.jp* >

IAEA-CN-316-2712

Materials: via Indico sever:



CURRENT REARRANGEMENT IN MERGING START-UP OF SPHERICAL TOKAMAK PLASMAS

Michiaki Inomoto

Michiaki Inomoto (The University of Tokyo), Japan

Corresponding Author: Michiaki Inomoto, *MichiakiInomoto* <*inomoto@k.u-tokyo.ac.jp*>

IAEA-CN-316-2713

Materials: via Indico sever:



Beamlet divergence of research and development negative ion source with RF mode at NIFS

Haruhisa Nakano

Haruhisa Nakano (National Institute for Fusion Science, National Institutes of Natural Sciences), Japan

Corresponding Author: Haruhisa Nakano, *HaruhisaNakano* < *nakano.haruhisa@nifs.ac.jp* >

IAEA-CN-316-2714

Materials: via Indico sever:



Repetitive generation of hydrogen negative ion beams with initial target parameters for the ITER HNB

Masashi Kasaki

Masashi Kasaki (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Masashi Kasaki, *MasashiKasaki* < *kisaki.masashi@qst.go.jp* >

IAEA-CN-316-2715

Materials: via Indico sever:



OPTIMAL DESIGN OF FAST PLASMA BOUNDARY CONTROL CONSIDERING VERTICAL INSTABILITY FEATURES USING IN-VESSEL COILS IN JT-60SA

Shinichiro Kojima

Shinichiro Kojima, Japan

Corresponding Author: Shinichiro Kojima, *ShinichiroKojima* < *kojima.shinichiro@qst.go.jp* >

IAEA-CN-316-2716



Materials: via Indico sever:

ANALYSIS OF FUEL RETENTION AND RECOVERY IN JET WITH BE-W WALL

Dmitry Matveev

Dmitry Matveev (Forschungszentrum Juelich), Germany

Corresponding Author: Dmitry Matveev, *DmitryMatveev* <*d.matveev@fz – juelich.de*>

IAEA-CN-316-2718

Materials: via Indico sever:



PROGRESS IN PLASMA-WALL INTERACTIONS MODELLING FOR EU-DEMO

Sebastijan Brezinsek

Sebastijan Brezinsek (Forschungszentrum Jülich), Germany

Corresponding Author: Sebastijan Brezinsek, *SebastijanBrezinsek* <*s.brezinsek@fz-juelich.de*>

IAEA-CN-316-2719

Materials: via Indico sever:



Pulse Design Simulator for JT-60SA

Emmanuel Joffrin

Emmanuel Joffrin (CEA), France

Corresponding Author: Emmanuel Joffrin, *EmmanuelJoffrin* < *emmanuel.joffrin@cea.fr* >

IAEA-CN-316-2720

Materials: via Indico sever:



Hybrid kinetic-MHD studies of runaway electron beam termination events

Hannes Bergström

Hannes Bergström, Germany

Corresponding Author: Hannes Bergström, *HannesBergström* < hannes.bergstroem@ipp.mpg.de >

IAEA-CN-316-2721

Materials: via Indico sever:



The impact of a flying collector on runaway electrons during current disruption in a tokamak

Boris Kuteev

Boris Kuteev (NRC Kurchatov Institute), Russia

Corresponding Author: Boris Kuteev, *BorisKuteev* < *kuteev_bv@nrcki.ru* >

IAEA-CN-316-2723

Materials: via Indico sever:



INTERMITTENT MERGING OPERATIONS OF SPHERICAL TOKAMAK PLASMAS FOR RECONNECTION HEATING AND HELICITY INJECTION

Yasushi Ono

Yasushi Ono (University of Tokyo), Japan

Corresponding Author: Yasushi Ono, *YasushiOno* < *ono@k.u-tokyo.ac.jp* >

IAEA-CN-316-2724

Materials: via Indico sever:



PERFORMANCE OF JT-60SA SUPERCONDUCTING MAGNET OPERATION IN INTEGRATED COMMISSIONING TEST

Katsuhiko TSUCHIYA

Katsuhiko TSUCHIYA (QST, Naka), Japan

Corresponding Author: Katsuhiko TSUCHIYA, *KatsuhikoTSUCHIYA* < *tsuchiya.katsuhiko@qst.go.jp* >

IAEA-CN-316-2727

Materials: via Indico sever:



Laser-driven non-thermal aneutronic Proton-Boron fusion reactions in solid-density plasma

Ryunosuke Takizawa

Ryunosuke Takizawa (The University of Osaka), Japan

Corresponding Author: Ryunosuke Takizawa, *RyunosukeTakizawa* < *takizawa.ryunosuke.ile@osaka-u.ac.jp* >

IAEA-CN-316-2728

Materials: via Indico sever:



Bifurcated particle transport states driven by regulatory energetic ions in LHD plasmas

Masaki Nishiura

Masaki Nishiura (National Institute for Fusion Science), Japan

Corresponding Author: Masaki Nishiura, *MasakiNishiura* < *nishiura@nifs.ac.jp* >

IAEA-CN-316-2729

Materials: via Indico sever:



EXPERIMENTAL UPDATE ON THE COUNTER-ILLUMINATING FAST IGNITION SCHEME USING THE KJ-CLASS ULTRA-INTENSE LASER LFEX

Yoshitaka Mori

Yoshitaka Mori (The Graduate School for the Creation of New Photonics Industries), Japan

Corresponding Author: Yoshitaka Mori, *YoshitakaMori* < *ymori@gpi.ac.jp* >

IAEA-CN-316-2730



Materials: via Indico sever:

10-HZ LASER BEAM STEERING AND ILLUMINATION FOR FREE-FALL TARGETS

Kazuki Matsuo

Kazuki Matsuo (EX-Fusion Inc.), Japan

Corresponding Author: Kazuki Matsuo, *KazukiMatsuo* <*kazuki_matsuo@ex - fusion.com*>

IAEA-CN-316-2731

Materials: via Indico sever:



TOWARDS DIGITAL TWINS OF FUSION SYSTEMS

Frank Jenko

Frank Jenko, Germany

Corresponding Author: Frank Jenko, *FrankJenko* < *frank.jenko@ipp.mpg.de* >

IAEA-CN-316-2930

Materials: via Indico sever:



INVESTIGATING THE FORMATION AND GROWTH OF FUZZY NANO-STRUCTURES DUE TO THE INTERACTION OF HELIUM PLASMA WITH TUNGSTEN UTILIZING A DC GLOW DISCHARGE PLASMA DEVICE

Faridodin Sedighi

Faridodin Sedighi (Nuclear Science and Technology Research Institute (NSTRI), Atomic Energy Organization of Iran (AEOI)), Iran

Corresponding Author: Faridodin Sedighi, *Faridodin.Sedighi* < *fsedighi@aeoi.org.ir* >

IAEA-CN-316-2734

Materials: via Indico sever:



Material selection for mirror substrate compatible with high-power laser beam utilized by Tritium-monitor diagnostic in ITER

Sebastijan Brezinsek

Sebastijan Brezinsek (Institute of Fusion Energy and Nuclear Waste Management "Plasma Physics, Forschungszentrum Jülich GmbH, Germany), Germany

Corresponding Author: Sebastijan Brezinsek, *Sebastijan.Brezinsek* < *s.brezinsek@fz-juelich.de* >

IAEA-CN-316-2736



Materials: via Indico sever:

STUDY ON THE THERMAL PERFORMANCE OF ITER TUNGSTEN DIVERTOR MONOBLOCK USING NANOFUID FOR COOLING ENHANCEMENT

Salah El-Din El-Morshedy

Salah El-Din El-Morshedy (Egyptian Atomic Energy Authority), Egypt

Corresponding Author: Salah El-Din El-Morshedy, *SalahEl-DinEl-Morshedy* < *s.e.elmorshedy@gmail.com* >

IAEA-CN-316-2737

Materials: via Indico sever:



DEVELOPMENT OF A FAMILY OF RAYS TRACING CODE BASED ON A NON-COMMUTATIVE KINETIC RAY SYSTEM

Kota Yanagihara

Kota Yanagihara (National Institutes for Quantum and Radiological Science and Technology), Japan

Corresponding Author: Kota Yanagihara, *KotaYanagihara* < *yanagihara.kota@qst.go.jp* >

IAEA-CN-316-2738

Materials: via Indico sever:



DEVELOPMENT OF DATA ASSIMILATION SYSTEM ASTI TOWARD DIGITAL TWIN CONTROL OF FUSION PLASMA

Yuya Morishita

Yuya Morishita (Kyoto University), Japan

Corresponding Author: Yuya Morishita, *YuyaMorishita* < *morishita.yuya.7x@kyoto-u.ac.jp* >

IAEA-CN-316-2739

Materials: via Indico sever:



Numerical Analysis of Electron Distribution Function under Electron Cyclotron Heating during Tokamak Start-up

Naoto Tsujii

Naoto Tsujii (The University of Tokyo), Japan

Corresponding Author: Naoto Tsujii, *NaotoTsujii* <*tsujii@k.u-tokyo.ac.jp*>

IAEA-CN-316-2740

Materials: via Indico sever:



APPLICATIONS OF IN-SHOT CONTINUOUS NBI CONTROL SYSTEM TO FIRE MODE IN KSTAR

Seulchan Hong

Seulchan Hong (Korea institute of Fusion Energy (KFE)), Korea, Republic of

Corresponding Author: Seulchan Hong, *SeulchanHong* < *hongsc7@kfe.re.kr* >

IAEA-CN-316-2741

Materials: via Indico sever:



Recovery Behavior of High-Purity Cubic SiC for First-Wall Applications in Fusion Reactors by Post-Irradiation Annealing After Low-Temperature Neutron Irradiation

Mohd Idzat Bin Idris

Mohd Idzat Bin Idris (Department of Applied Physics, Faculty Science and Technology, Universiti Kebangsaan Malaysia), Malaysia

Corresponding Author: Mohd Idzat Bin Idris, *MohdIdzatBinIdris* < idzat@ukm.edu.my >

IAEA-CN-316-2742



Materials: via Indico sever:

On the selfconsistency between ray-tracing/Fokker-Planck and the toroidal MHD equilibrium for the Lower Hybrid current drive

Yves Peysson, Riccardo Saura

Yves Peysson (CEA), Riccardo Saura (CEA), France

Corresponding Author: Yves Peysson, Riccardo Saura, *YvesPeysson* < *yves.peysson@cea.fr* >
, *RiccardoSaura* < *riccardo.saura@cea.fr* >

IAEA-CN-316-2743

Materials: via Indico sever:



Hierarchy of turbulent transport models with the SOLEDGE3X code

Hugo Bufferand

Hugo Bufferand (CEA), France

Corresponding Author: Hugo Bufferand, *HugoBufferand* < *hugo.bufferand@cea.fr* >

IAEA-CN-316-2744

Materials: via Indico sever:



LIQUID METAL DROPLETS SYSTEMS FOR APPLICATION IN TOKAMAKS AND PLASMA DEVICES

Alexey Dedov

Alexey Dedov (NRU "MPEI"), Russia

Corresponding Author: Alexey Dedov, *AlexeyDedov* < *dedovav@mpei.ru* >

IAEA-CN-316-2745

Materials: via Indico sever:



DETERMINATION OF W CHARACTERISTICS IN WEST BY MEANS OF EXTREME UV EMISSION AND ARTIFICIAL INTELLIGENCE

Pierre Manas

Pierre Manas (CEA-IRFM), France

Corresponding Author: Pierre Manas, *PierreManas* < *pierre.manas@cea.fr* >

IAEA-CN-316-2746

Materials: via Indico sever:



How MeV-range ions and high \hat{I}^2 will shape the core plasma dynamics of fusion power plants

Samuele Mazzi

Samuele Mazzi (CEA, IRFM, F-13108 Saint Paul-lez-Durance, France), France

Corresponding Author: Samuele Mazzi, *SamueleMazzi* < *samuele.mazzi@cea.fr* >

IAEA-CN-316-2747

Materials: via Indico sever:



Analytical approach to calculation of disruption-induced vertical force on the tokamak wall

Vladimir Pustovitov

Vladimir Pustovitov (National Research Centre Kurchatov Institute), Russia

Corresponding Author: Vladimir Pustovitov, *VladimirPustovitov* < *pustovitov_vd@nrcki.ru* >

IAEA-CN-316-2748

Materials: via Indico sever:



FIRST SOLPS-ITER WIDE GRID SIMULATIONS OF THE ITER BURNING PLASMA SCRAPE-OFF LAYER

Elizaveta Kaveeva

Elizaveta Kaveeva (Peter the Great St. Petersburg Polytechnic University), Russia

Corresponding Author: Elizaveta Kaveeva, *ElizavetaKaveeva* < *e.kaveeva@spbstu.ru* >

IAEA-CN-316-2749

Materials: via Indico sever:



FAST: A FUSION ENERGY SYSTEMS INTEGRATION TEST FACILITY

Akira Ejiri

Akira Ejiri (Graduate School of Frontier Sciences, The University of Tokyo), Japan

Corresponding Author: Akira Ejiri, *AkiraEjiri* < *ejiri@k.u – tokyo.ac.jp* >

IAEA-CN-316-2750

Materials: via Indico sever:



Validation of Tungsten Nuclear Data Using the TUD-W benchmark

Fabbri Fabbri

Fabbri Fabbri (Fusion For Energy), Spain

Corresponding Author: Fabbri Fabbri, *FabbriFabbri* < marco.fabbri@f4e.europa.eu >

IAEA-CN-316-2751

Materials: via Indico sever:



INVESTIGATION OF FILAMENT DYNAMICS USING HIGH-SPEED VIDEO SHOOTING IN THE GLOBUS-M2 TOKAMAK

Vladimir Timokhin

Vladimir Timokhin (Saint-Petersburg State Polytechnical University), Russia

Corresponding Author: Vladimir Timokhin, *VladimirTimokhin* < *v.timokhin@spbstu.ru* >

IAEA-CN-316-2752



Materials: via Indico sever:

DEVELOPMENT OF ITER HIGH-FIDELITY PLASMA SIMULATOR BASED ON JINTRAC AND DINA, AND STRATEGY FOR VALIDATION

Sun Hee KIM

Sun Hee KIM (ITER Organization), ITER Organization

Corresponding Author: Sun Hee KIM, *SunHeeKIM* < *sunhee.kim@iter.org* >

IAEA-CN-316-2753

Materials: via Indico sever:



MULTI-MACHINE VALIDATION OF PLASMA INITIATION MODELLING AND PROSPECTS FOR FUTURE DEVICES

Hyun-Tae Kim

Hyun-Tae Kim (United Kingdom Atomic Energy Authority), United Kingdom

Corresponding Author: Hyun-Tae Kim, *Hyun – TaeKim* < *hyun – tae.kim@ukaea.uk* >

IAEA-CN-316-2754

Materials: via Indico sever:



GYROKINETIC LINEAR SIMULATION OF HOT ION MODE IN GLOBUS-M2 SPHERICAL TOKAMAK

Evgenii Kiselev

Evgenii Kiselev (Ioffe Institute), Russia

Corresponding Author: Evgenii Kiselev, *EvgeniiKiselev* < *nightkeo@gmail.com* >

IAEA-CN-316-2755

Materials: via Indico sever:



Intra-shot Tools for Plasma Scenario Optimization and Magnetic Control

Massimiliano Mattei

Massimiliano Mattei (CREATE/Universit  di Napoli Federico II), Italy

Corresponding Author: Massimiliano Mattei, *MassimilianoMattei* < *massimiliano.mattei@unina.it* >

IAEA-CN-316-2757

Materials: via Indico sever:



THE DIVERTOR TOKAMAK TEST FACILITY: MACHINE DESIGN, CONSTRUCTION AND COMMISSIONING

Gian Mario Polli

Gian Mario Polli (ENEA, DTT Scarl), Italy

Corresponding Author: Gian Mario Polli, *GianMarioPolli* < *gianmario.polli@enea.it* >

IAEA-CN-316-2758

Materials: via Indico sever:



THE BELGIUM CONTRIBUTION TO THE DEVELOPMENT OF STEELS FOR FUSION APPLICATIONS

Dmitry Terentyev

Dmitry Terentyev, Belgium

Corresponding Author: Dmitry Terentyev, *DmitryTerentyev* < *dterenty@sckcen.be* >

IAEA-CN-316-2759

Materials: via Indico sever:



Key dependencies for the radial density decay in the far-SOL of JET H-mode plasmas

Christian Perez von Thun

Christian Perez von Thun (IPPLM), Poland

Corresponding Author: Christian Perez von Thun, *ChristianPerezvonThun* < *christian.perez.von.thun@ifpilm.pl* >

IAEA-CN-316-2760

Materials: via Indico sever:



Simulation of tungsten erosion and edge-to-core transport in neon-seeded JET plasmas

Henri Kumpulainen

Henri Kumpulainen (FZJ), Germany

Corresponding Author: Henri Kumpulainen, *HenriKumpulainen* <*h.kumpulainen@fz-juelich.de*>

IAEA-CN-316-2761

Materials: via Indico sever:



3D MODELLING OF THERMAL LOADS DURING UNMITIGATED VERTICAL DISPLACEMENT EVENTS IN ITER AND JET

Francisco Javier Artola Such

Francisco Javier Artola Such (ITER Organization), ITER Organization

Corresponding Author: Francisco Javier Artola Such, *FranciscoJavierArtolaSuch* < javier.artola@iter.org >

IAEA-CN-316-2762

Materials: via Indico sever:



Qualification of the European gyrotrons and power supplies of the Electron Cyclotron Heating and Current Drive system of ITER

Ferran Albajar

Ferran Albajar (Fusion for Energy), Fusion for Energy

Corresponding Author: Ferran Albajar, *FerranAlbajar* < *ferran.albajar@f4e.europa.eu* >

IAEA-CN-316-2763

Materials: via Indico sever:



Starting DTT infrastructures construction at ENEA Frascati Site

Gianmario Polli

Gianmario Polli (DDT Project), Italy

Corresponding Author: Gianmario Polli, *GianmarioPolli* < *gianmario.polli@dtf – project.it* >

IAEA-CN-316-2764

Materials: via Indico sever:



Impact of Stark Broadening on Ion Temperature Measurements in the ITER Divertor Plasma

Motoshi Goto

Motoshi Goto (National Institute for Fusion Science), Japan

Corresponding Author: Motoshi Goto, *MotoshiGoto* < *goto.motoshi@nifs.ac.jp* >

IAEA-CN-316-2765

Materials: via Indico sever:



CHANGE OF WALL MATERIAL FROM BERYLLIUM TO TUNGSTEN IN THE NEW ITER BASELINE: PHYSICS BASIS, IMPLICATIONS FOR RESEARCH PLAN AND WALL DESIGNS FOR ITS OPERATIONAL PHASES

Alberto Loarte

Alberto Loarte (ITER Organization), France

Corresponding Author: Alberto Loarte, *AlbertoLoarte* < *alberto.loarte@iter.org* >

IAEA-CN-316-2766

Materials: via Indico sever:



Tests of ultrasonic lithium injector with external lithium supply system on tokamak T-11M

Anastasiia Shcherbak

Anastasiia Shcherbak (SRC RF TRINITI), Russia

Corresponding Author: Anastasiia Shcherbak, *AnastasiiaShcherbak* < *shcherbak@triniti.ru* >

IAEA-CN-316-2767

Materials: via Indico sever:



INVESTIGATING LONG-DURATION PLASMA OPERATION WITH THE INTERNATIONAL MULTI-MACHINE DATABASE

xavier Litaudon

xavier Litaudon (CEA), France

Corresponding Author: xavier Litaudon, *xavierLitaudon* < *xavier.litaudon@cea.fr* >

IAEA-CN-316-2770

Materials: via Indico sever:



**MULTI-FIELD TURBULENCE AND TRANSPORT BARRIER
MEASUREMENTS AND VALIDATING PREDICTIVE CODES
FOR HIGH-PERFORMANCE, NEGATIVE TRIANGULARITY
ELM-FREE DIII-D PLASMAS**

Guiding Wang

Guiding Wang (UCLA), United States

Corresponding Author: Guiding Wang, *GuidingWang* < wanggd@ucla.edu >

IAEA-CN-316-2772

Materials: via Indico sever:



DISCOVERY OF CROSS-SCALE NONLINEAR INTERACTION AND BIFURCATION IN MULTI-SCALE TURBULENCE IN LHD PLASMA

Tokihiko Tokuzawa

Tokihiko Tokuzawa (National Institute for Fusion Science), Japan

Corresponding Author: Tokihiko Tokuzawa, *TokihikoTokuzawa* < tokuzawa@nifs.ac.jp >

IAEA-CN-316-2778

Materials: via Indico sever:



Hybrid simulation of Alfvén eigenmodes caused by multiple fast ion species in the Large Helical Device

RYOSUKE SEKI

RYOSUKE SEKI (National Institute for Fusion Science), Japan

Corresponding Author: RYOSUKE SEKI, *RYOSUKESEKI* < *seki.ryohsuke@nifs.ac.jp* >

IAEA-CN-316-2779

Materials: via Indico sever:



MUTLISCALE GYROKINETIC SIMULATIONS OF THE INTERACTION BETWEEN TURBULENCE AND FISHBONE

Huishan Cai

Huishan Cai (University of Science and Technology of China), China

Corresponding Author: Huishan Cai, *HuishanCai* < hscai@mail.ustc.edu.cn >

IAEA-CN-316-2780

Materials: via Indico sever:



EDGE MAGNETIC ISLANDS AND ITS APPLICATION TO THE DEVELOPMENT OF ADVANCED DIVERTOR CONFIGURATION ON THE J-TEXT TOKAMAK

Yunfeng Liang

Yunfeng Liang (Forschungszentrum Jülich GmbH, Germany), Germany

Corresponding Author: Yunfeng Liang, *YunfengLiang* <*y.liang@fz-juelich.de*>

IAEA-CN-316-2781

Materials: via Indico sever:



THE SCALING OF THE ION HEATING AND ELECTROSTATIC POTENTIAL IN SPHERICAL TOKAMAK

Tara Ahmadi

Tara Ahmadi (University of Tokyo), Japan

Corresponding Author: Tara Ahmadi, *TaraAhmadi* < tara.ahmadi.smart@gmail.com >

IAEA-CN-316-2782

Materials: via Indico sever:



NON-INDUCTIVE PLASMA START-UP USING ELECTRON BERNSTEIN WAVE MODE-CONVERTED FROM ELECTRON CYCLOTRON WAVE LAUNCHED FROM HIGH-FIELD SIDE ON SPHERICAL TOKAMAK, QUEST

kazuaki Hanada

kazuaki Hanada (Advanced Fusion Research Center, Research Institute for Applied Mechanics, Kyushu University), Japan

Corresponding Author: kazuaki Hanada, *kazuakiHanada* < *hanada@triam.kyushu-u.ac.jp* >

IAEA-CN-316-2783

Materials: via Indico sever:



DIRECT CONTROL OF TURBULENCE FOR IMPROVED PLASMA CONFINEMENT

Toshiki Kinoshita

Toshiki Kinoshita (Kyushu university), Japan

Corresponding Author: Toshiki Kinoshita, *ToshikiKinoshita* <*t.kinoshita@triam.kyushu-u.ac.jp*>

IAEA-CN-316-2784

Materials: via Indico sever:



DEVELOPMENT OF INNOVATIVE REPEATABLE POWER LASER FOR LASER FUSION

Jumpei Ogino

Jumpei Ogino (Osaka university), Japan

Corresponding Author: Jumpei Ogino, *JumpeiOgino* <ogino.jumpei.ile@osaka-u.ac.jp>

IAEA-CN-316-2785

Materials: via Indico sever:



ELECTRON DENSITY WINDOW ON THE SUPPRESSION OF SPONTANEOUS NEOCLASSICAL TEARING MODE WITH HIGH FRACTION OF BOOTSTRAP CURRENT

Tong Liu

Tong Liu (Dalian University of Technology), China

Corresponding Author: Tong Liu, *TongLiu* <liutong@dlut.edu.cn >

IAEA-CN-316-2786

Materials: via Indico sever:



OBSERVATION OF NONLINEAR COUPLING OF WAVES EXCITED AT DISTINCT REGIONS OF OVERLAPPING DUAL LOWER HYBRID AND ION CYCLOTRON RESONANCES

Hiroe Igami

Hiroe Igami (National Institute for Fusion Science), Japan

Corresponding Author: Hiroe Igami, *HiroeIgami* < *igami.hiroe@nifs.ac.jp* >

IAEA-CN-316-2787



Materials: via Indico sever:

Material migration and erosion of plasma-facing components in the full-tungsten WEST tokamak during its Phase 1 and Phase 2 operations

Antti Hakola

Antti Hakola (VTT Technical Research Centre of Finland Ltd.), Finland

Corresponding Author: Antti Hakola, *AnttiHakola* < *antti.hakola@vtt.fi* >

IAEA-CN-316-2788

Materials: via Indico sever:



OVERVIEW OF THE MAST UPGRADE PHYSICS PROGRAMME: TESTING NOVEL CONCEPTS AT LOW ASPECT RATIO TO INFORM FUTURE DEVICES

James Harrison

James Harrison (United Kingdom Atomic Energy Authority), United Kingdom

Corresponding Author: James Harrison, *JamesHarrison* < james.harrison@ukaea.uk >

IAEA-CN-316-2808



Materials: via Indico sever:

A novel computation of the linear plasma response to a resonant error field in single-fluid visco-resistive MHD and application to the RFXmod2 tokamak

paolo zanca

paolo zanca (consorzio rfx), Italy

Corresponding Author: paolo zanca, *paolozanca* < *paolo.zanca@igi.cnr.it* >

IAEA-CN-316-2791

Materials: via Indico sever:



OVERVIEW OF THE DESIGN AND PROCUREMENT OF ECRH SYSTEM FOR DTT

Saul Garavaglia

*Saul Garavaglia (Institute for Plasma Science and Technology, National Research Council (ISTP-CNR),
Milano, Italy), Italy*

Corresponding Author: Saul Garavaglia, *SaulGaravaglia* < *saül.garavaglia@istp.cnr.it* >

IAEA-CN-316-2792

Materials: via Indico sever:



INVESTIGATION OF PLASMA PARAMETERS IN SAWTOOTH OSCILLATION BY ABSOLUTE INTENSITY OF SOFT X-RAY EMISSION IN JT-60SA INTEGRATED COMMISSIONING PHASE

Ryuichi Sano

Ryuichi Sano (National Institutes for Quantum Science and Technology (QST)), Japan

Corresponding Author: Ryuichi Sano, *RyuichiSano* < *sano.ryuichi@qst.go.jp* >

IAEA-CN-316-2793

Materials: via Indico sever:



INVESTIGATION OF THE MAGNETIC FLUX PUMPING EFFECT IN MAST UPGRADE

Sam Blackmore

Sam Blackmore (UKAEA), United Kingdom

Corresponding Author: Sam Blackmore, *SamBlackmore* < *sam.blackmore@ukaea.uk* >

IAEA-CN-316-2794

Materials: via Indico sever:



INTERPRETING STRUCTURES OBSERVED IN PELLET ABLATION PROFILES IN THE STELLARATOR TJ-II

Kieran Joseph Mc Carthy

Kieran Joseph Mc Carthy (Ciemat), Spain

Corresponding Author: Kieran Joseph Mc Carthy, *Kieran.JosephMcCarthy* < *kieran.mccarthy@ciemat.es* >

IAEA-CN-316-2795

Materials: via Indico sever:



HIGH-FIELD-SIDE HIGH-DENSITY REGION IN GLOBUS-M2 DIVERTOR

Eugene Mukhin

Eugene Mukhin (Ioffe Institute), Russia

Corresponding Author: Eugene Mukhin, *EugeneMukhin* < *e.mukhin@mail.ioffe.ru* >

IAEA-CN-316-2796

Materials: via Indico sever:



Catalogue-based reverse engineering: for AI-based modelling in fusion remote maintenance equipment design

William Brace

William Brace (VTT), Finland

Corresponding Author: William Brace, *WilliamBrace* < *william.brace@vtt.fi* >

IAEA-CN-316-2797

Materials: via Indico sever:



Lagrangian statistics of heavy impurity transport in drift-wave turbulence

Zetao Lin

Zetao Lin (Aix-Marseille University), France

Corresponding Author: Zetao Lin, *ZetaoLin* < zetao.lin@etu.univ-amu.fr >

IAEA-CN-316-2798

Materials: via Indico sever:



Experimental analyses and numerical modelling of trace neon shattered pellet injection discharges on JET

Mengdi Kong

Mengdi Kong (EPFL-SPC), Switzerland

Corresponding Author: Mengdi Kong, *MengdiKong* < *mengdi.kong@epfl.ch* >

IAEA-CN-316-2799

Materials: via Indico sever:



PROGRESS IN MULTIPLE-MIRROR PLASMA CONFINEMENT AT THE GOL-NB FACILITY

Sergey Polosatkin

Sergey Polosatkin (Budker Institute of Nuclear Physics), Russia

Corresponding Author: Sergey Polosatkin, *SergeyPolosatkin* < *s.v.polosatkin@inp.nsk.su* >

IAEA-CN-316-2800

Materials: via Indico sever:



Effect of collision processes in divertor plasma on the tokamak operational window

Daisuke Umezaki

Daisuke Umezaki (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Daisuke Umezaki, *DaisukeUmezaki* < *omezaki.daisuke@qst.go.jp* >

IAEA-CN-316-2801

Materials: via Indico sever:



RECENT PROGRESS IN THE PILOT GAMMA PDX-SC SUPERCONDUCTING MIRROR

Mizuki Sakamoto

Mizuki Sakamoto (Plasma Research Center, University of Tsukuba), Japan

Corresponding Author: Mizuki Sakamoto, *MizukiSakamoto* < *sakamoto@prc.tsukuba.ac.jp* >

IAEA-CN-316-2802

Materials: via Indico sever:



EXPLORING ENHANCED PLASMA PERFORMANCE AFTER PELLET INJECTIONS VIA ROTATIONAL TRANSFORM MODULATION IN THE TJ-II STELLARATOR

Isabel Garc a-Cort s

Isabel Garc a-Cort s (CIEMAT), Spain

Corresponding Author: Isabel Garc a-Cort s, *IsabelGarc a-Corts* < isabel.garciacortes@ciemat.es >

IAEA-CN-316-2803

Materials: via Indico sever:



CONFINEMENT MODELLING OF ENHANCED PLASMA PERFORMANCE AFTER MULTIPLE PELLET INJECTIONS IN THE TJ-II STELLARATOR

Victor Tribaldos

Victor Tribaldos (Universidad Carlos III de Madrid), Spain

Corresponding Author: Victor Tribaldos, *VictorTribaldos* < *victor.tribaldos@uc3m.es* >

IAEA-CN-316-2804

Materials: via Indico sever:



THE WENDELSTEIN 7-X ECRH PLANT - EXPERIENCE WITH RELIABLE LONG PULSE OPERATION OF A MULTI MW GYROTRON INSTALLATION

Stefan Marsen

Stefan Marsen (Max-Planck-Institut für Plasmaphysik Teilinstitut Greifswald), Germany

Corresponding Author: Stefan Marsen, *StefanMarsen* < *stefan.marsen@ipp.mpg.de* >

IAEA-CN-316-2805

Materials: via Indico sever:



OVERVIEW OF UKAEA'S INTEGRATED FUSION TECHNOLOGY PROGRAMMES, EMPHASISING A DIGITAL FIRST STRATEGY

Rachel Lawless

Rachel Lawless (UKAEA), United Kingdom

Corresponding Author: Rachel Lawless, *RachelLawless* < *rachel.lawless@ukaea.uk* >

IAEA-CN-316-3065

Materials: via Indico sever:



CRYOPUMP AND FUELLING LOCATION IMPACTS ON UPSTREAM DENSITY AND DETACHMENT ON MAST-U

Qian Xia

Qian Xia (Culham Centre for Fusion Energy), United Kingdom

Corresponding Author: Qian Xia, *Qian.Xia* < *qian.xia@ukaea.uk* >

IAEA-CN-316-2807

Materials: via Indico sever:



OVERVIEW OF ST40 RESULTS AND FUTURE: EXPANDING THE PHYSICS BASIS OF HIGH-FIELD SPHERICAL TOKAMAKS

Otto Asunta

Otto Asunta (Tokamak Energy Ltd.), United Kingdom

Corresponding Author: Otto Asunta, *OttoAsunta* <otto.asunta@tokamakenergy.co.uk>

IAEA-CN-316-3337

Materials: via Indico sever:



MEASUREMENTS OF TOROIDAL ROTATION VELOCITY IN TUMAN-3M TOKAMAK IN NBI AND H-MODE REGIMES

Leonid Askinazi

Leonid Askinazi (Ioffe Institute), Russia

Corresponding Author: Leonid Askinazi, *LeonidAskinazi* <*leonid.askinazi@mail.ioffe.ru*>

IAEA-CN-316-2809

Materials: via Indico sever:



Performance of Li- and Sn-filled CPS targets under the transient plasma loads in QSPA

Igor Garkusha

Igor Garkusha (IPP NSC KIPT), Ukraine

Corresponding Author: Igor Garkusha, *IgorGarkusha* < *garkusha@ipp.kharkov.ua* >

IAEA-CN-316-2810

Materials: via Indico sever:



Utilizing a visible camera in the first operation phase(s) of a fusion device

Tamas Szepesi

Tamas Szepesi (HUN-REN Centre for Energy Research, Institute for Atomic Energy Research), Hungary

Corresponding Author: Tamas Szepesi, *TamasSzepesi* < *szepesi.tamas@ek.hun – ren.hu* >

IAEA-CN-316-2811

Materials: via Indico sever:



STUDY OF FAST ION TRANSPORT AND LOSSES DURING ALFVÄN TYPE MHD INSTABILITIES AT GLOBUS-M2

Olga Skrekel

Olga Skrekel (Ioffe Institute, Russia), Russia

Corresponding Author: Olga Skrekel, *Olga.Skrekel* < *skrekel@mail.ioffe.ru* >

IAEA-CN-316-2812

Materials: via Indico sever:



Overview of CRAFT project progress

Jiangang Li

Jiangang Li (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Jiangang Li, *JiangangLi* < *ji@ipp.ac.cn* >

IAEA-CN-316-2955

Materials: via Indico sever:



JET HYBRID SCENARIO DEVELOPMENT IN D-T FOR IMPURITY SCREENING STUDY

damian king

damian king (UKAEA), United Kingdom

Corresponding Author: damian king, *damianking* < *damian.king@ukaea.uk* >

IAEA-CN-316-2814

Materials: via Indico sever:



OPENMC BASED SIMULATIONS FOR SHUTDOWN DOSE RATE ASSESSMENT IN THE DEMO FUSION REACTOR

Roman Afanasenko

Roman Afanasenko, Germany

Corresponding Author: Roman Afanasenko, *RomanAfanasenko* < *roman.afanasenko@kit.edu* >

IAEA-CN-316-2815

Materials: via Indico sever:



THE STATUS AND DESIGN CHALLENGES OF THE HEATING AND CURRENT DRIVE SYSTEMS FOR DTT

Afra Romano

Afra Romano (DTT - ENEA, C.R. Frascati, Italy), Italy

Corresponding Author: Afra Romano, *AfraRomano* <*afra.romano@dtt-project.it*>

IAEA-CN-316-2816

Materials: via Indico sever:



NUMERICAL ANALYSIS OF PEELING-BALLOONING STABILITY AT VARIOUS TRIANGULARITIES IN GLOBUS-M2

Vladimir Solokha

Vladimir Solokha (Ioffe Institute), Russia

Corresponding Author: Vladimir Solokha, *Vladimir.Solokha* <*vsolokha@mail.ioffe.ru*>

IAEA-CN-316-2817

Materials: via Indico sever:



Multi-Machine Studies of Low-Z Benign Termination of Runaway Electron Beams and Extrapolation to ITER

Umar Sheikh

Umar Sheikh (SPC-EPFL), Switzerland

Corresponding Author: Umar Sheikh, *UmarSheikh* < *umar.sheikh@epfl.ch* >

IAEA-CN-316-2818

Materials: via Indico sever:



HEATING D IONS TO OPTIMAL D-T FUSION ENERGIES WITH ICRF WAVES

Ernesto Lerche

Ernesto Lerche (Laboratory for Plasma Physics, ERM/KMS), Belgium

Corresponding Author: Ernesto Lerche, *ErnestoLerche* < *ernesto.lerche@ukaea.uk* >

IAEA-CN-316-2819

Materials: via Indico sever:



Learned models for integrated tokamak scrape-off layer modelling and design

George Holt

George Holt (STFC Hartree Centre), United Kingdom

Corresponding Author: George Holt, *GeorgeHolt* < *george.holt@stfc.ac.uk* >

IAEA-CN-316-2820

Materials: via Indico sever:



Dimensional Isotope Scaling of Heat and Particle Transport between JET Deuterium and Tritium L-mode Plasmas

Tuomas Tala

Tuomas Tala (VTT, Association Euratom-Tekes), Finland

Corresponding Author: Tuomas Tala, *TuomasTala* < *tuomas.tala@vtt.fi* >

IAEA-CN-316-2821

Materials: via Indico sever:



Operating Beyond the Greenwald Density Limit in Negative Triangularity Plasmas on DIII-D Tokamak

Rongjie HONG

Rongjie HONG (UCLA), United States

Corresponding Author: Rongjie HONG, *RongjieHONG* <rongjie.hong@gmail.com>

IAEA-CN-316-2823

Materials: via Indico sever:



Fast ion transport simulations for the Spherical Tokamak for Energy Production

Antti Snicker

Antti Snicker (VTT Technical Research Centre of Finland Ltd.), Finland

Corresponding Author: Antti Snicker, *AnttiSnicker* < *antti.snicker@vtt.fi* >

IAEA-CN-316-2824

Materials: via Indico sever:



OVERVIEW OF THE EUROPEAN CONTRIBUTION TO THE DIAGNOSTIC EQUIPMENT OF JT-60SA FOR THE NEXT OPERATIONAL PHASES

Carlo Sozzi

Carlo Sozzi (Istituto per la Scienza e Tecnologia dei Plasmi ISTP-CNR Milano Italy), Italy

Corresponding Author: Carlo Sozzi, *CarloSozzi* < carlo.sozzi@istp.cnr.it >

IAEA-CN-316-2827

Materials: via Indico sever:



Recent advances at the Globus-M2 tokamak

Nikolai Bakharev

Nikolai Bakharev (Ioffe Institute), Russia

Corresponding Author: Nikolai Bakharev, *NikolaiBakharev* <*bakharev@mail.ioffe.ru*>

IAEA-CN-316-2866

Materials: via Indico sever:



MULTI-SCALE INTERACTION NEAR LOCKED MAGNETIC ISLANDS AND RESULTING DISRUPTION DELAY IN KSTAR

Jayhyun Kim

Jayhyun Kim (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Jayhyun Kim, *JayhyunKim* <*jayhyunkim@kfe.re.kr*>

IAEA-CN-316-2829

Materials: via Indico sever:



Fuel supply and helium ash exhaust in global gyrokinetic ITG/TEM turbulence

Kenji Imadera

Kenji Imadera (Kyoto University), Japan

Corresponding Author: Kenji Imadera, *KenjiImadera* <*imadera@energy.kyoto-u.ac.jp*>

IAEA-CN-316-2830

Materials: via Indico sever:



Density Limit Disruption Induced by Core-localized Alfvénic Ion Temperature Gradient Instabilities in a Toroidal Plasma

Wei Chen

Wei Chen (Southwestern Institute of Physics, P.O. Box 432 Chengdu 610041, China), China

Corresponding Author: Wei Chen, *WeiChen* < *chenw@swip.ac.cn* >

IAEA-CN-316-2831

Materials: via Indico sever:



Noninductive Startup of Spherical Tokamak with Reduced Trapped Electrons by Electron Bernstein Wave Heating and Current Drive on LATE

Masaki Uchida

Masaki Uchida (Kyoto University), Japan

Corresponding Author: Masaki Uchida, *MasakiUchida* < *m-uchida@energy.kyoto-u.ac.jp* >

IAEA-CN-316-2832

Materials: via Indico sever:



Development of welding, cutting and bolting tools for ITER blanket remote maintenance

TAKEYUKI TANAKA

TAKEYUKI TANAKA (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: TAKEYUKI TANAKA, *TAKEYUKITANAKA* < *tanaka.takeyuki@qst.go.jp* >

IAEA-CN-316-2833

Materials: via Indico sever:



Progress with commissioning the icrh system for the large optimized stellarator wendelstein 7-x

Jozef ONGENA

Jozef ONGENA (Plasma Physics Lab, ERM-KMS, Brussels), Belgium

Corresponding Author: Jozef ONGENA, *Joze fONGENA* < *j.ongena@fz – juelich.de* >

IAEA-CN-316-2834

Materials: via Indico sever:



MACHINE ENHANCEMENT OF TOKAMAK DEVICE FOR THE JT-60SA NEXT OPERATION

HIROKI KAYANO

HIROKI KAYANO (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: HIROKI KAYANO, *HIROKIKAYANO* < *kayano.hiroki@qst.go.jp* >

IAEA-CN-316-2835

Materials: via Indico sever:



Global gyrokinetic simulations of isotope effects for future tokamak plasma core and pedestal

Lei Qi

Lei Qi (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Lei Qi, *LeiQi* < *qileister@nfri.re.kr* >

IAEA-CN-316-2836

Materials: via Indico sever:



Extrapolative Predictability of Plasma Turbulent Transport via a Multi-Fidelity Data Fusion Approach

Shinya Maeyama

Shinya Maeyama (National Institute for Fusion Science), Japan

Corresponding Author: Shinya Maeyama, *ShinyaMaeyama* < *maeyama.shinya@nifs.ac.jp* >

IAEA-CN-316-2838

Materials: via Indico sever:



WALL CONDITIONING PLASMA PRODUCTION USING FUNDAMENTAL AND SECOND HARMONIC ELECTRON CYCLOTRON WAVES IN JT-60SA

Masakatsu Fukumoto

Masakatsu Fukumoto (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Masakatsu Fukumoto, *MasakatsuFukumoto* < fukumoto.masakatsu@qst.go.jp >

IAEA-CN-316-2839

Materials: via Indico sever:



Investigation of broadband fluctuation-induced inward transport at the edge of HL-2A NBI heated plasma

Jie Wu

Jie Wu (University of Science and Technology of China), China

Corresponding Author: Jie Wu, *JieWu* <fly.wujie@outlook.com>

IAEA-CN-316-2840

Materials: via Indico sever:



ESTIMATION OF PLASMA PARAMETERS BASED ON DISCHARGE SETTINGS ON WEST

Chenguang Wan

Chenguang Wan (Nanyang Technological University), Singapore

Corresponding Author: Chenguang Wan, *ChenguangWan* < *chenguang.wan@ntu.edu.sg* >

IAEA-CN-316-2841

Materials: via Indico sever:



Modelling divertor solutions for power exhaust: in-depth experimental validation in TCV

Elena Tonello

*Elena Tonello (Ecole Polytechnique Fédérale de Lausanne (EPFL) - Swiss Plasma Center (SPC)),
Switzerland*

Corresponding Author: Elena Tonello, *ElenaTonello* <elena.tonello@epfl.ch>

IAEA-CN-316-2842

Materials: via Indico sever:



BORON CARBIDE CERAMICS AS NEUTRON SHIELDING FOR ITER PORT-PLUGS

Andrey Shoshin

Andrey Shoshin (Budker Institute of Nuclear Physics), Russia

Corresponding Author: Andrey Shoshin, *AndreyShoshin* < *shoshin@mail.ru* >

IAEA-CN-316-2843

Materials: via Indico sever:



Global Fluid Turbulence Simulations of Pedestal Relaxation Events in the I-mode regime with GRILLIX

Christoph Pitzal

Christoph Pitzal (Max Planck Institute for Plasma Physics (IPP)), Germany

Corresponding Author: Christoph Pitzal, *ChristophPitzal* <*christoph.pitzal@ipp.mpg.de*>

IAEA-CN-316-2844

Materials: via Indico sever:



Peeling limited pedestals in JET, MAST-U and TCV: effect of density and isotope mass in deuterium and tritium-rich plasma on pedestal structure and stability and validation of pedestal predictions for ITER.

Lorenzo Frassinetti

Lorenzo Frassinetti (KTH Royal Institute of Technology), Sweden

Corresponding Author: Lorenzo Frassinetti, *LorenzoFrassinetti* <lorenzof@kth.se >

IAEA-CN-316-2845

Materials: via Indico sever:



IMPACT OF ION TEMPERATURE ON DETACHED PLASMA IN GAMMA 10/PDX DIVERTOR SIMULATION PLASMA

Naomichi Ezumi

Naomichi Ezumi (University of Tsukuba), Japan

Corresponding Author: Naomichi Ezumi, *NaomichiEzumi* < ezumi@prc.tsukuba.ac.jp >

IAEA-CN-316-2846

Materials: via Indico sever:



ITER DISRUPTION MITIGATION SYSTEM DESIGN AND APPLICATION STRATEGY

Stefan Jachmich

Stefan Jachmich (ITER Organization), ITER Organization

Corresponding Author: Stefan Jachmich, *Stefan.Jachmich* < *stefan.jachmich@iter.org* >

IAEA-CN-316-2847

Materials: via Indico sever:



Scaling of the H-mode electron separatrix density based on engineering parameters from C-Mod, AUG and JET data

Davide Silvagni

Davide Silvagni (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Davide Silvagni, *DavideSilvagni* < *davide.silvagni@ipp.mpg.de* >

IAEA-CN-316-2848

Materials: via Indico sever:



Bayesian Data Fusion for Enhanced Edge Plasma Density Profile estimation in KSTAR

Jaewook Kim

Jaewook Kim (Korea Institute of Fusion Energy (KFE)), Korea, Republic of

Corresponding Author: Jaewook Kim, *JaewookKim* <*ijwkim@kfe.re.kr*>

IAEA-CN-316-2849

Materials: via Indico sever:



PROGRESS OF ITER AND ITS VALUE FOR FUSION

Pietro barabaschi

Pietro barabaschi (ITER), ITER Organization

Corresponding Author: Pietro barabaschi, *Pietrobarabaschi* < pietro.barabaschi@iter.org >

IAEA-CN-316-2903

Materials: via Indico sever:



CONFINEMENT PROPERTY IN THE JT-60SA FIRST OPERATIONAL PHASE

Yoshiaki Ohtani

Yoshiaki Ohtani (QST), Japan

Corresponding Author: Yoshiaki Ohtani, *YoshiakiOhtani* < *ohtani.yoshiaki@qst.go.jp* >

IAEA-CN-316-2851

Materials: via Indico sever:



Developing Open Machine Learning Benchmarks for Tokamak Event Prediction from MAST

Prakhar Sharma

Prakhar Sharma (UK Atomic Energy Authority), United Kingdom

Corresponding Author: Prakhar Sharma, *PrakharSharma* < *prakhar.sharma@ukaea.uk* >

IAEA-CN-316-2852

Materials: via Indico sever:



ADVANCES IN EUROPEAN IN-KIND CONTRIBUTIONS TO PLASMA DIAGNOSTICS AND PORT INTEGRATION FOR ITER

Clara Colomer, Miguel Perez

Clara Colomer (Fusion for Energy), Miguel Perez (Fusion for Energy), Fusion for Energy

Corresponding Author: Clara Colomer, Miguel Perez, *ClaraColomer* < clara.colomer@f4e.europa.eu >
, *MiguelPerez* < miguel.perez@f4e.europa.eu >

IAEA-CN-316-2854

Materials: via Indico sever:



Strategic plan to demonstrate heatwave-driven laser fusion with fast ignition scheme

Yasuhiko Sentoku

Yasuhiko Sentoku (Institute of Laser Engineering, Osaka University), Japan

Corresponding Author: Yasuhiko Sentoku, *YasuhikoSentoku* < *sentoku.yasuhiko.ile@osaka-u.ac.jp* >

IAEA-CN-316-2828

Materials: via Indico sever:



Implementation of a tightly baffled long-legged divertor in TCV

Holger Reimerdes

Holger Reimerdes (Ecole Polytechnique Fédérale de Lausanne (EPFL), Centre de Recherches en Physique des Plasmas), Switzerland

Corresponding Author: Holger Reimerdes, *HolgerReimerdes* < *holger.reimerdes@epfl.ch* >

IAEA-CN-316-2856

Materials: via Indico sever:



Theory-based integrated modelling of tungsten transport: validation in present-day tokamaks and predictions for ITER

Daniel Fajardo

Daniel Fajardo (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Daniel Fajardo, *DanielFajardo* < *daniel.fajardo@ipp.mpg.de* >

IAEA-CN-316-2857

Materials: via Indico sever:



Study of plasma-edge turbulence reduction in negative triangularity plasmas using Thermal Helium Beam diagnostic in the TCV Tokamak

Margherita Ugoletti

Margherita Ugoletti (ISTP CNR - Consorzio RFX), Italy

Corresponding Author: Margherita Ugoletti, *MargheritaUgoletti* < *margherita.ugoletti@igi.cnr.it* >

IAEA-CN-316-2858

Materials: via Indico sever:



Europeâs cutting-edge Handling Systems for the ITER assembly in the pre-start of research operations phase

Emilio Ruiz Morales

Emilio Ruiz Morales (Fusion For Energy), Fusion for Energy

Corresponding Author: Emilio Ruiz Morales, *EmilioRuizMorales* < *emilio.ruiz@f4e.europa.eu* >

IAEA-CN-316-2859

Materials: via Indico sever:



THE FINAL DESIGN ACCOMPLISHMENT OF THE EC UPPER LAUNCHER AND EX-VESSEL WAVEGUIDE SYSTEMS FOR ITER

Sandra Julia Torres

Sandra Julia Torres (Fusion for Energy), Spain

Corresponding Author: Sandra Julia Torres, *SandraJuliaTorres* < *sandra.julia@f4e.europa.eu* >

IAEA-CN-316-2860

Materials: via Indico sever:



Active spectroscopy for atomic H and D measurements in fusion

Ivo Furno

Ivo Furno (EPFL- SPC), Switzerland

Corresponding Author: Ivo Furno, *IvoFurno* <ivo.furno@epfl.ch>

IAEA-CN-316-2864

Materials: via Indico sever:



GAM FREQUENCY STRUCTURE AND PROPERTIES IN OHMIC AND POWERFUL ECR-HEATED PLASMAS IN A TOKAMAK

Alexander Melnikov

Alexander Melnikov (NRC 'Kurchatov Institute'), Russia

Corresponding Author: Alexander Melnikov, *AlexanderMelnikov* < *melnikov07@yahoo.com* >

IAEA-CN-316-2865

Materials: via Indico sever:



Results from the last DD and DT JET campaigns in the framework of the EUROfusion Tokamak Exploitation activity

Marco Wischmeier

Marco Wischmeier (IPP Garching), Italy

Corresponding Author: Marco Wischmeier, *MarcoWischmeier* < marco.wischmeier@ipp.mpg.de >

IAEA-CN-316-2850

Materials: via Indico sever:



The construction and commissioning of the Electron Bernstein Wave Heating and Current-Drive System for MAST-U

Philippe Jacquet

Philippe Jacquet (UKAEA), United Kingdom

Corresponding Author: Philippe Jacquet, *PhilippeJacquet* < *philippe.jacquet@ukaea.uk* >

IAEA-CN-316-2867

Materials: via Indico sever:



Integrated Modelling activities in support of the ITER re-baseline

Mireille SCHNEIDER

Mireille SCHNEIDER (ITER Organization), France

Corresponding Author: Mireille SCHNEIDER, *MireilleSCHNEIDER* < *mireille.schneider@iter.org* >

IAEA-CN-316-2868



Materials: via Indico sever:

A MULTISCALE AND MULTIPHYSICS APPROACH TO THE DEVELOPMENT OF A HIGH-FIDELITY PHYSICS PLASMA SIMULATOR FOR BURNING PLASMA

Francesca POLI

Francesca POLI (ITER Organization), ITER Organization

Corresponding Author: Francesca POLI, *FrancescaPOLI* < *francesca.poli@iter.org* >

IAEA-CN-316-2869

Materials: via Indico sever:



A Global Licensing and Regulation Framework for Fusion Energy

Ralf Kaiser

Ralf Kaiser (ICTP), Italy

Corresponding Author: Ralf Kaiser, *Ralf Kaiser* <*rkaiser@ictp.it*>

IAEA-CN-316-2870

Materials: via Indico sever:



FREEGSNKE: AN OPEN SOURCE, PURE-PYTHON, PREDICTIVE EVOLUTIVE EQUILIBRIUM CODE FOR CONTROL DESIGN AND VALIDATION – Applications at UKAEA

Nicola Amorisco

Nicola Amorisco (UK Atomic Energy Authority), United Kingdom

Corresponding Author: Nicola Amorisco, *NicolaAmorisco* < *nicola.amorisco@ukaea.uk* >

IAEA-CN-316-2871

Materials: via Indico sever:



STEP: NOVEL POWER INFRASTRUCTURE FOR FUSION POWERPLANTS

Jack Acres

Jack Acres (United Kingdom Industrial Fusion Solutions), United Kingdom

Corresponding Author: Jack Acres, *JackAcres* < *jack.acres@ukifs.uk* >

IAEA-CN-316-2872

Materials: via Indico sever:



RECOVERY OF ITER SECTOR MODULES FROM CRITICAL ISSUES

Chang Hyun Noh

Chang Hyun Noh (ITER organization), ITER Organization

Corresponding Author: Chang Hyun Noh, *ChangHyunNoh* < *changhyun.noh@iter.org* >

IAEA-CN-316-2875

Materials: via Indico sever:



IMPURITY RADIATION SEEDING OF NEOCLASSICAL TEARING MODE GROWTH

Shiyong Zeng

Shiyong Zeng (Huazhong University of Science and Technology), China

Corresponding Author: Shiyong Zeng, *ShiyongZeng* < *zengsy@hust.edu.cn* >

IAEA-CN-316-2876

Materials: via Indico sever:



Evaluation of solid spherical fuel compression by comparison with simulation

Ryunosuke Takizawa

Ryunosuke Takizawa (The University of Osaka), Japan

Corresponding Author: Ryunosuke Takizawa, *RyunosukeTakizawa* < *takizawa.ryunosuke.ile@osaka-u.ac.jp* >

IAEA-CN-316-2877

Materials: via Indico sever:



Modeling of heat flux on the main limiter in EAST

binfu Gao

binfu Gao (ASIPP), China

Corresponding Author: binfu Gao, *binfuGao* < *binfu.gao@ipp.ac.cn* >

IAEA-CN-316-2878

Materials: via Indico sever:



INVESTIGATING OF MULTI-SCALE INSTABILITIES IN EAST ION TEMPERATURE CENTRAL PEAK DISCHARGE

Liqing Xu

Liqing Xu (ASIPP), China

Corresponding Author: Liqing Xu, *LiqingXu* <*lqxu@ipp.cas.cn*>

IAEA-CN-316-2879

Materials: via Indico sever:



Evaluation of plasma performance in JA DEMO steady-state operation

Shota Sugiyama

Shota Sugiyama, Japan

Corresponding Author: Shota Sugiyama, *ShotaSugiyama* < *sugiyama.shota@qst.go.jp* >

IAEA-CN-316-2880

Materials: via Indico sever:



Virtual Tokamak for Integrated Physics and Engineering Analysis

Jae-Min Kwon

Jae-Min Kwon (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Jae-Min Kwon, *Jae – Min Kwon* <jmkwon74@kfe.re.kr >

IAEA-CN-316-2881

Materials: via Indico sever:



STRUCTURE DESIGN OF POLOIDAL HORSESHOE LIMITER FOR PULSE OPERATION HEAT LOAD IN JA DEMO

Weixi Chen

Weixi Chen (National Institute for Quantum Science and Technology), Japan

Corresponding Author: Weixi Chen, *WeixiChen* < *chen.weixi@qst.go.jp* >

IAEA-CN-316-2882

Materials: via Indico sever:



APPLICATION OF LOW-Z MATERIALS FOR ENHANCING H MODE PLASMA PERFORMANCE AND PULSE DURATION IN EAST WITH FULL METAL WALL

Guizhong Zuo

Guizhong Zuo, China

Corresponding Author: Guizhong Zuo, *GuizhongZuo* < *zuoguizh@ipp.ac.cn* >

IAEA-CN-316-2883

Materials: via Indico sever:



Research on new high-strength structural materials for low-temperature applications in the next generation of fusion reactors

weijun Wang

weijun Wang (Institute of Plasma Physics Chinese Academy of Sciences), China

Corresponding Author: weijun Wang, *weijunWang* < *weijun.wang@ipp.ac.cn* >

IAEA-CN-316-2884

Materials: via Indico sever:



Can turbulent transport in optimized stellarators be lower than tokamaks

Haotian Chen

Haotian Chen (Peking Univeisity), China

Corresponding Author: Haotian Chen, *HaotianChen* <2101110150@stu.pku.edu.cn>

IAEA-CN-316-2885

Materials: via Indico sever:



HIGH GAIN FUSION BURNING IN INERTIAL CONFINEMENT FUSION PLASMA

Yasunobu Arikawa

Yasunobu Arikawa (Institute of Laser Engineering, Osaka University), Japan

Corresponding Author: Yasunobu Arikawa, *Yasunobu.Arikawa* <*arikawa.yasunobu.ile@osaka – u.ac.jp*>

IAEA-CN-316-2887

Materials: via Indico sever:



PARTICLE TRANSPORT OF OHMIC DISCHARGES WITH DIFFERENT PLASMA CURRENT IN EAST TOKAMAK

SHOUXIN WANG

SHOUXIN WANG (Institute Of Plasma Physics Chinese Academy Of Sciences), China

Corresponding Author: SHOUXIN WANG, *SHOUXINWANG* < *wangshouxin@ipp.ac.cn* >

IAEA-CN-316-2889

Materials: via Indico sever:



H-mode operation scenarios in JT-60SA initial research phase predicted by integrated core-pedestal-SOL/divertor simulation

Nobuyuki AIBA

Nobuyuki AIBA (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Nobuyuki AIBA, *NobuyukiAIBA* < *aiba.nobuyuki@qst.go.jp* >

IAEA-CN-316-2890

Materials: via Indico sever:



Observation of fluctuation-induced particle transport phenomena in the RT-1 levitated dipole

Haruhiko Saitoh

Haruhiko Saitoh (The University of Tokyo), Japan

Corresponding Author: Haruhiko Saitoh, *HaruhikoSaitoh* < *saito@ppl.k.u – tokyo.ac.jp* >

IAEA-CN-316-2891

Materials: via Indico sever:



Exploitation of stable high- I_p regime under new tungsten divertor environment in KSTAR

Boseong Kim, Sang-hee Hahn

Boseong Kim (Seoul National University), Sang-hee Hahn (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Boseong Kim, Sang-hee Hahn, *BoseongKim* < *bobokim@kfe.re.kr* >, *Sang – heeHahn* < *hahn76@kfe.re.kr* >

IAEA-CN-316-2892

Materials: via Indico sever:



SIMULATIONS OF RMP CONFIGURATIONS FOR TUNGSTEN IMPURITY CONTROL IN EAST TOKAMAK

Zihao Gao

Zihao Gao, China

Corresponding Author: Zihao Gao, *ZihaoGao* < *dllggzh@mail.dlut.edu.cn* >

IAEA-CN-316-2893

Materials: via Indico sever:



Experimental study of EPM instability in the EAST off-axis region with elevated safety factor (q) value

Ming Xu

Ming Xu (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Ming Xu, *MingXu* < *mxu@ipp.ac.cn* >

IAEA-CN-316-2894

Materials: via Indico sever:



IMPROVEMENT OF PLASMA PERFORMANCE BY EDGE ECRH POWER DEPOSITION IN EAST

yongliang Li

yongliang Li (ASIPP), China

Corresponding Author: yongliang Li, *yongliangLi* < *ylli@ipp.ac.cn* >

IAEA-CN-316-2895

Materials: via Indico sever:



STRAY RF EVALUATION AND DESIGN IMPROVEMENT ON THE ITER EQUATORIAL EC H&CD LAUNCHER

Satoru Yajima

Satoru Yajima (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Satoru Yajima, *SatoruYajima* <yajima.satoru@qst.go.jp>

IAEA-CN-316-2896

Materials: via Indico sever:



ANOMALOUS X2-MODE ECRH POWER ABSORPTION AT THE TJ-II STELLARATOR: COMPARISON OF THEORY AND EXPERIMENTS

Alexei Popov

Alexei Popov (Ioffe Institute), Russia

Corresponding Author: Alexei Popov, *AlexeiPopov* <*a.popov@mail.ioffe.ru*>

IAEA-CN-316-2897

Materials: via Indico sever:



DEVELOPMENT OF EQUILIBRIUM CONTROL SIMULATOR AND EXPERIMENTAL VALIDATION OF ADVANCED ISO-FLUX EQUILIBRIUM CONTROL DURING THE FIRST OPERATIONAL PHASE OF JT-60SA

Shizuo Inoue

Shizuo Inoue (QST), Japan

Corresponding Author: Shizuo Inoue, *ShizuoInoue* < *inoue.shizuo@qst.go.jp* >

IAEA-CN-316-2898

Materials: via Indico sever:



Pumping requirements for core plasma performance in STEP using JINTRAC

Emmi Tholerus

Emmi Tholerus (UK Atomic Energy Authority), United Kingdom

Corresponding Author: Emmi Tholerus, *EmmiTholerus* < *emmi.tholerus@ukaea.uk* >

IAEA-CN-316-2899

Materials: via Indico sever:



Global Electromagnetic Symmetry-Breaking Effects on Momentum Transport and Current Generation in Tokamaks

Zhixin Lu

Zhixin Lu (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Zhixin Lu, *ZhixinLu* <*luzhixin@ipp.mpg.de*>

IAEA-CN-316-2900

Materials: via Indico sever:



Zonal Flows in stellarators: Experimental measurements, code validation and implications for future reactors

Daniel Carralero

Daniel Carralero (CIEMAT), Spain

Corresponding Author: Daniel Carralero, *DanielCarralero* < *daniel.carralero@ciemat.es* >

IAEA-CN-316-2901

Materials: via Indico sever:



[OV POSTER TWIN] Overview of CRAFT project progress

Jiangang Li

Jiangang Li (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Jiangang Li, *JiangangLi* < *jli@ipp.ac.cn* >

IAEA-CN-316-3380

Materials: via Indico sever:



OVERVIEW OF RECENT EXPERIMENTAL RESULTS ON EAST IN SUPPORT OF ITER NEW RESEARCH PLAN

Xianzu Gong

Xianzu Gong (Institute of Plasma Physics, Chinese Academy Sciences), China

Corresponding Author: Xianzu Gong, *XianzuGong* <*xz_gong@ipp.ac.cn*>

IAEA-CN-316-3326

Materials: via Indico sever:



WEST LONG-PULSE ACHIEVEMENTS IN SUPPORT OF NEXT-STEP FUSION DEVICES

Remi Dumont

Remi Dumont (CEA, IRFM), France

Corresponding Author: Remi Dumont, *RemiDumont* < *remi.dumont@cea.fr* >

IAEA-CN-316-2904

Materials: via Indico sever:



Defining Operational Scenarios for DTT in metallic environment: A Modeling Study of Core-Edge Dynamics and Plasma-Wall Interaction

Luca Balbinot

Luca Balbinot (Università della Tuscia), Italy

Corresponding Author: Luca Balbinot, *LucaBalbinot* <luca.balbinot@unitus.it>

IAEA-CN-316-2905

Materials: via Indico sever:



Study on the key technologies involved in the laser neutralisation of negative ion source

Yuan-lai Xie, huihui hong

Yuan-lai Xie, huihui hong, China

Corresponding Author: Yuan-lai Xie, huihui hong, *Yuan-lai Xie <laurence@ipp.ac.cn>, huihuihong <huihui.hong@mail.ustc.edu.cn>*

IAEA-CN-316-2906

Materials: via Indico sever:



Conceptual design of the Fusion ENergY eXperiment (FENYX)

Vadim Yanovskiy

Vadim Yanovskiy (Institute of Plasma Physics of the Czech Academy of Sciences), Czech Republic

Corresponding Author: Vadim Yanovskiy, *VadimYanovskiy* < *yanovskiy@ipp.cas.cz* >

IAEA-CN-316-2907

Materials: via Indico sever:



Impact of radiation distribution on detachment onset and implications for STEP divertor design

Michal Jan Kryjak

Michal Jan Kryjak (UKAEA), United Kingdom

Corresponding Author: Michal Jan Kryjak, *MichalJanKryjak* < *mike.kryjak@ukaea.uk* >

IAEA-CN-316-2908

Materials: via Indico sever:



THE EFFECT OF GAS PUFFING AT THE LH GRILL ON THE EFFICIENCY OF THE CENTRAL DENSE PLASMA ION HEATING AT THE FT-2 TOKAMAK

Denis Kuprienko

Denis Kuprienko (Ioffe Institute), Russia

Corresponding Author: Denis Kuprienko, *DenisKuprienko* < *denis.kouprienko@mail.ioffe.ru* >

IAEA-CN-316-2910

Materials: via Indico sever:



OVERVIEW OF THE DCLL BREEDING BLANKET FOR HELIAS 5-B AND FURTHER STEPS TOWARDS A NOVEL QI DEVICE

IOLE PALERMO

IOLE PALERMO (CIEMAT), Spain

Corresponding Author: IOLE PALERMO, *IOLEPALERMO* <iole.palermo@ciemat.es>

IAEA-CN-316-2911

Materials: via Indico sever:



Flux Pumping in ASDEX Upgrade, JET and JOREK

Alexander Bock

Alexander Bock (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Alexander Bock, *AlexanderBock* <*alexander.bock@ipp.mpg.de*>

IAEA-CN-316-2912

Materials: via Indico sever:



NEUTRAL BEAM INJECTION FOR ELECTRON HEATING OF GLOBUS-M2 SPHERICAL TOKAMAK'S PLASMA

Gleb Kurskiev

Gleb Kurskiev (Ioffe Institute), Russia

Corresponding Author: Gleb Kurskiev, *GlebKurskiev* <*gleb.kurskiev@mail.ioffe.ru*>

IAEA-CN-316-2913

Materials: via Indico sever:



THE GLOBUS-3 PROJECT AS THE NEXT STEP IN THE RESEARCH PROGRAM ON SPHERICAL TOKAMAKS AT THE IOFFE INSTITUTE

Vladimir Minaev

Vladimir Minaev (Ioffe Institute), Russia

Corresponding Author: Vladimir Minaev, *VladimirMinaev* <vladimir.minaev@mail.ioffe.ru>

IAEA-CN-316-2914

Materials: via Indico sever:



OVERVIEW OF PLASMA DISRUPTION MITIGATION ON J-TEXT TOKAMAK

Wei Yan

Wei Yan (Huazhong University of Science and Technology), China

Corresponding Author: Wei Yan, *WeiYan* < yanwei1090@hust.edu.cn >

IAEA-CN-316-2915

Materials: via Indico sever:



Predictive study of non-axisymmetric neutral beam ion loss on the upgraded KSTAR plasma-facing components

Taeuk Moon

Taeuk Moon (Ulsan National Institute of Science and Technology, Republic of Korea), Korea, Republic of

Corresponding Author: Taeuk Moon, *TaeukMoon* < *tmoon@unist.ac.kr* >

IAEA-CN-316-2916

Materials: via Indico sever:



Control of energetic particle modes on the TCV tokamak

Anton Jansen van Vuuren

Anton Jansen van Vuuren (Swiss Plasma Center EPFL), Switzerland

Corresponding Author: Anton Jansen van Vuuren, *AntonJansenvanVuuren* <*anton.jansenvanvuuren@epfl.ch*>

IAEA-CN-316-2917

Materials: via Indico sever:



CORE AND EDGE TRANSPORT OF SCENARIO WITH INTERNAL TRANSPORT BARRIER IN TRITIUM AND DEUTERIUM-TRITIUM PLASMAS IN JET WITH BE/W WALL

Costanza Maggi

Costanza Maggi (UKAEA), United Kingdom

Corresponding Author: Costanza Maggi, *CostanzaMaggi* < *costanza.maggi@ukaea.uk* >

IAEA-CN-316-2918

Materials: via Indico sever:



Turbulence, zonal flows, and global modes in burning plasmas: code development and simulations

Axel K  nies

Axel K  nies (Max-Planck-Institut f  r Plasmaphysik), Germany

Corresponding Author: Axel K  nies, *AxelK  nies* <*axel.koenies@ipp.mpg.de*>

IAEA-CN-316-2919

Materials: via Indico sever:



Neutronics Analysis of EU DEMO Conducted at the Lithuanian Energy Institute

Simona Breidokaite

Simona Breidokaite (Lithuanian Energy Institute, Laboratory of Nuclear Installation Safety), Lithuania

Corresponding Author: Simona Breidokaite, *SimonaBreidokaite* < *simona.breidokaite@lei.lt* >

IAEA-CN-316-2921

Materials: via Indico sever:



Piecewise omnigenous fields: a radically new family of optimized magnetic fields for stellarator reactors

Jose Luis Velasco Garasa

Jose Luis Velasco Garasa (Laboratorio Nacional de Fusión, CIEMAT), Spain

Corresponding Author: Jose Luis Velasco Garasa, *JoseLuisVelascoGarasa* <jose Luis.velasco@ciemat.es>

IAEA-CN-316-2922

Materials: via Indico sever:



EXPERIMENTAL AND NUMERICAL STUDY OF BROAD WAVENUMBER TURBULENCE AND TRANSPORT IN ION INTERNAL TRANSPORT BARRIER PLASMAS ON EAST

Pengjun Sun

Pengjun Sun (Institute of plasma physics, Chinese Academy of Sciences), China

Corresponding Author: Pengjun Sun, *Pengjun.Sun* < *sunpj@ipp.ac.cn* >

IAEA-CN-316-2923

Materials: via Indico sever:



High performance ELM-free semi-detached scenario sustained at high-current in JET DTE3

Carine Giroud

Carine Giroud (UKAEA), United Kingdom

Corresponding Author: Carine Giroud, *CarineGiroud* < *carine.giroud@ukaea.uk* >

IAEA-CN-316-2924

Materials: via Indico sever:



Overview of the recent experimental studies of plasma-facing components irradiated with divertor relevant plasma

Viacheslav Budaev

Viacheslav Budaev (National Research Center "Kurchatov Institute"), Russia

Corresponding Author: Viacheslav Budaev, *ViacheslavBudaev* < *budaev@mail.ru* >

IAEA-CN-316-2926

Materials: via Indico sever:



WEST OPERATION α " RELIABILITY AND AVAILABILITY OF A LONG PULSE FUSION TOKAMAK

Valerie LAMAISSON

Valerie LAMAISSON (CEA Cadarache), France

Corresponding Author: Valerie LAMAISSON, *ValerieLAMAISSON* < *valerie.lamaison@cea.fr* >

IAEA-CN-316-2927

Materials: via Indico sever:



STEP INBOARD SYSTEM " ARCHITECTURE AND TECHNOLOGY DEVELOPMENT OVERVIEW

Simon Kirk

Simon Kirk (UK Industrial Fusion Solutions Ltd.), United Kingdom

Corresponding Author: Simon Kirk, *SimonKirk* < *simon.kirk@ukifs.uk* >

IAEA-CN-316-2928

Materials: via Indico sever:



BREAKING OF THE ION TEMPERATURE CLAMPING IN ELECTRON HEATED PLASMAS WITH TURBULENCE STABILIZATION

Pierre Manas

Pierre Manas (CEA, Cadarache), France

Corresponding Author: Pierre Manas, *PierreManas* < pierre.manas@cea.fr >

IAEA-CN-316-2929



Materials: via Indico sever:

[OV POSTER TWIN] PROGRESS OF ITER AND ITS VALUE FOR FUSION

Pietro barabaschi

Pietro barabaschi (ITER), ITER Organization

Corresponding Author: Pietro barabaschi, *Pietrobarabaschi* < pietro.barabaschi@iter.org >

IAEA-CN-316-3381

Materials: via Indico sever:



Deuterium interaction with low^αactivated chromium-manganese austenitic steel with increased contamination of carbide particles

Anna Golubeva

Anna Golubeva (NRC "Kurchatov institute"), Russia

Corresponding Author: Anna Golubeva, *AnnaGolubeva* < *anna – golubeva@yandex.ru* >

IAEA-CN-316-2931

Materials: via Indico sever:



AI-AUGMENTED SCENARIO DESIGN AND CLASSICAL CONTROL OF TOKAMAK PLASMAS

Adriano Agnello

Adriano Agnello (STFC Hartree Centre), United Kingdom

Corresponding Author: Adriano Agnello, *AdrianoAgnello* < *adriano.agnello@stfc.ac.uk* >

IAEA-CN-316-2932

Materials: via Indico sever:



Generation and acceleration of steady-state plasma in PLM-M device for testing of fusion materials

Sergey Fedorovich

Sergey Fedorovich (National Research University "Moscow Power Engineering Institute"), Russia

Corresponding Author: Sergey Fedorovich, *SergeyFedorovich* <fedorovichsd@mail.ru >

IAEA-CN-316-2933

Materials: via Indico sever:



ANTICIPATING TRITIUM IMPACT AND TRANSFER IN FISSION AND FUSION POWERPLANTS

Elodie Bernard

Elodie Bernard (CEA Cadarache), France

Corresponding Author: Elodie Bernard, *ElodieBernard* < *elodie.bernard@cea.fr* >

IAEA-CN-316-2934

Materials: via Indico sever:



DATA-EFFICIENT DIGITAL TWINNING STRATEGIES AND SURROGATE MODELS OF QUASILINEAR TURBULENCE IN JET AND STEP

Lorenzo Zanisi

Lorenzo Zanisi (CCFE), United Kingdom

Corresponding Author: Lorenzo Zanisi, *LorenzoZanisi* <lorenzo.zanisi@ukaea.uk>

IAEA-CN-316-2936

Materials: via Indico sever:



NEUTRONICS FOR ITER NUCLEAR PHASE: INSIGHTS AND LESSONS LEARNT FROM JET DT OPERATION

Rosaria Villari

Rosaria Villari (ENEA), Italy

Corresponding Author: Rosaria Villari, *RosariaVillari* <*rosaria.villari@enea.it*>

IAEA-CN-316-2937

Materials: via Indico sever:



TESTING TUNGSTEN PLASMA FACING COMPONENTS IN WEST AND AUG TOKAMAKS : LESSONS FOR ITER

yann corre

yann corre (FrCEAIREM), France

Corresponding Author: yann corre, *yanncorre* < *yann.corre@cea.fr* >

IAEA-CN-316-2938

Materials: via Indico sever:



Design and qualification activity of the first divertor of the DIVERTOR TOKAMAK TEST FACILITY

Selanna Roccella

Selanna Roccella (ENEA), Italy

Corresponding Author: Selanna Roccella, *SelannaRoccella* < *selanna.roccella@enea.it* >

IAEA-CN-316-2939

Materials: via Indico sever:



UK STEP TOWARDS A FUSION POWER PLANT PLASMA

Hendrik Meyer

Hendrik Meyer (UKIFS), United Kingdom

Corresponding Author: Hendrik Meyer, *HendrikMeyer* < *hendrik.meyer@ukifs.uk* >

IAEA-CN-316-2940

Materials: via Indico sever:



Observations of core heating and current drive by helicon waves at DIII-D

Bart Van Compernelle

Bart Van Compernelle (General Atomics), United States

Corresponding Author: Bart Van Compernelle, *BartVanCompernelle* < *vancompernelle@fusion.gat.com* >

IAEA-CN-316-2943

Materials: via Indico sever:



Core-edge integration studies in negative triangularity in TCV

Olivier F  vrier

*Olivier F  vrier (Ecole Polytechnique F  d  rale de Lausanne (EPFL), Swiss Plasma Center (SPC),
CH-1015 Lausanne, Switzerland), Switzerland*

Corresponding Author: Olivier F  vrier, *OlivierFvrier* < *olivier.fevrier@epfl.ch* >

IAEA-CN-316-2944

Materials: via Indico sever:



Exploration of emission spectra from highly charged tungsten impurity ions in X-ray wavelength range of $3.7\text{--}4.0\text{ \AA}$ in the Large Helical Device for fusion plasma diagnostics

Tetsutarou Oishi

Tetsutarou Oishi (Tohoku University), Japan

Corresponding Author: Tetsutarou Oishi, *TetsutarouOishi* < *tetsutarou.oishi.a4@tohoku.ac.jp* >

IAEA-CN-316-2949

Materials: via Indico sever:



Fusion-Alpha-Enhanced Displacement and Stability of ITER Helical Core Plasmas

Panith Adulsiriswad

Panith Adulsiriswad (National Institute for Quantum Science and Technology), Japan

Corresponding Author: Panith Adulsiriswad, *PanithAdulsiriswad* <adulsiriswad.panith@qst.go.jp>

IAEA-CN-316-2951

Materials: via Indico sever:



EFFECT OF DECREASING ASPECT RATIO ON ION-SCALE ELECTROSTATIC DRIFT-TYPE MODES AND PEDESTAL STABILITY IN H-MODE PLASMAS

Jin yong Kim

Jin yong Kim (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Jin yong Kim, *JinyongKim* <*jykim@kfe.re.kr*>

IAEA-CN-316-2952

Materials: via Indico sever:



Breakthrough in performance degradation of ITER central solenoid conductors owing to short-twist-pitch cabling and suppression of bending strain

Tomone SUWA

Tomone SUWA (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Tomone SUWA, *Tomone.SUWA* < suwa.tomone@qst.go.jp >

IAEA-CN-316-2953

Materials: via Indico sever:



OVERVIEW OF WEST CONTRIBUTIONS TO THE NEW ITER BASELINE AND FUSION POWER PLANTS

Jerome Bucalossi

Jerome Bucalossi (CEA), France

Corresponding Author: Jerome Bucalossi, *JeromeBucalossi* < *jerome.bucalossi@cea.fr* >

IAEA-CN-316-3183

Materials: via Indico sever:



OVERVIEW OF ACHIEVEMENTS AND OUTLOOK OF THE IFMIF/EVEDA PROJECT

Kazuo HASEGAWA

Kazuo HASEGAWA (QST), Japan

Corresponding Author: Kazuo HASEGAWA, *KazuoHASEGAWA* < *hasegawa.kazuo@qst.go.jp* >

IAEA-CN-316-2956

Materials: via Indico sever:



Nonlinear saturation of toroidal Alfvén eigenmode via ion induced scattering in nonuniform plasmas

Zhiyong Qiu

Zhiyong Qiu (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Zhiyong Qiu, *ZhiyongQiu* <*zqiu@ipp.ac.cn*>

IAEA-CN-316-2957

Materials: via Indico sever:



Prediction of heat flux splitting by non-axisymmetric magnetic field in the realistic tokamak wall and divertor based on 3D CAD model

Kimin Kim

Kimin Kim (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Kimin Kim, *KiminKim* <*kiminkim@kfe.re.kr*>

IAEA-CN-316-2958

Materials: via Indico sever:



Compatibility of pronounced detachment with improved confinement on HL-2A tokamak

Ting Wu

Ting Wu (Southwestern Institute of Physics), China

Corresponding Author: Ting Wu, *TingWu* <610574712@qq.com>

IAEA-CN-316-2960

Materials: via Indico sever:



DEVELOPMENT OF HIGH-PERFORMANCE LONG-PULSE DISCHARGE IN KSTAR

HYUNSEOK KIM

HYUNSEOK KIM (Korea Institute of Fusion Energy (KFE)), Korea, Republic of

Corresponding Author: HYUNSEOK KIM, *HYUNSEOKKIM* <*hskim0618@nfri.re.kr*>

IAEA-CN-316-2961

Materials: via Indico sever:



ELECTRON CYCLOTRON HEATED LOW TO HIGH MODE TRANSITION IN KSTAR

Hogun Jhang, Minjun Choi

*Hogun Jhang (Korea Institute of Fusion Energy), Minjun Choi (Korea Institute of Fusion Energy), Korea,
Republic of*

Corresponding Author: Hogun Jhang, Minjun Choi, *HogunJhang* <*hgjhang@kfe.re.kr*>, *MinjunChoi* <*mjchoi@kfe.re.kr*>

IAEA-CN-316-2962

Materials: via Indico sever:



EXPERIMENTAL STUDY ON TRITIUM RELEASE FROM Li₂TiO₃ PEBBLES AS TRITIUM BREEDER THROUGH INTERNATIONAL COLLABORATION BETWEEN KOREA AND CHINA

Yi-Hyun PARK

Yi-Hyun PARK (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Yi-Hyun PARK, *Yi – HyunPARK* < yhpark@kfe.re.kr >

IAEA-CN-316-2963

Materials: via Indico sever:



APPLICATION AND ANALYSIS OF THE REVISED ACCURATE WEIGHT METHOD FOR FUSION FACILITIES

Do Hyun KIM

Do Hyun KIM (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Do Hyun KIM, *DoHyunKIM* <dhkim@kfe.re.kr>

IAEA-CN-316-2964

Materials: via Indico sever:



DEVELOPMENT OF HIGH POLOIDAL BETA SCENARIO FOR LONG-PULSE OPERATION IN COLLABORATION BETWEEN DIII-D AND KSTAR

Youngmu Jeon

Youngmu Jeon (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Youngmu Jeon, *Youngmu.Jeon* <*ymjeon@kfe.re.kr*>

IAEA-CN-316-2965

Materials: via Indico sever:



DESIGN-BASED MULTIDINENSIONAL TRITIUM TRANSPORT ANALYSIS PLATFORM FOR BLANKET SYSTEM

Yonghee Lee

Yonghee Lee (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Yonghee Lee, *YongheeLee* <ylee0604@kfe.re.kr >

IAEA-CN-316-2966

Materials: via Indico sever:



OVERVIEW OF ERROR FIELD SCALING STUDIES IN EAST AND IMPLICATIONS FOR ITER

Hui-Hui WANG

Hui-Hui WANG, China

Corresponding Author: Hui-Hui WANG, *Hui – HuiWANG* < hhwang@ipp.ac.cn >

IAEA-CN-316-2967

Materials: via Indico sever:



IMPACT OF THE TEMPERATURE RATIO ON TURBULENCE AND IMPURITY TRANSPORT IN THE EAST PLASMA CORE

Gongshun Li

Gongshun Li (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Gongshun Li, *GongshunLi* < *gsli@ipp.ac.cn* >

IAEA-CN-316-2968

Materials: via Indico sever:



Self-organized states of Alfvén eigenmodes and zonal modes via cross-scale interactions

Qinghao Yan

Qinghao Yan (Southwestern Institute of Physics), China

Corresponding Author: Qinghao Yan, *QinghaoYan* <qinghaoyan@outlook.com>

IAEA-CN-316-2969

Materials: via Indico sever:



DEVELOPMENT STATUS OF IN-VESSEL COMPONENTS INSPECTION AND PIPE MAINTENANCE ROBOT FOR K-DEMO AND FUSION EXPERIMENTAL DEVICE

Dohee Lee, Woong Chae Kim

*Dohee Lee (Korea Institute of Fusion Energy), Woong Chae Kim (Korea Institute of Fusion Energy), Korea,
Republic of*

Corresponding Author: Dohee Lee, Woong Chae Kim, *DoheeLee* < *dhlee@kfe.re.kr* >, *WoongChaeKim* < *woong@kfe.re.kr* >

IAEA-CN-316-2970

Materials: via Indico sever:



Thermal quench dynamics and heat flux distribution during massive-impurity-injection triggered disruption in EAST

Long Zeng

Long Zeng (Tsinghua University), China

Corresponding Author: Long Zeng, *LongZeng* < zenglong@tsinghua.edu.cn >

IAEA-CN-316-2971

Materials: via Indico sever:



Energy exchange between electrons and ions induced by ITG-TEM turbulence

Tetsuji Kato

Tetsuji Kato (The University of Tokyo), Japan

Corresponding Author: Tetsuji Kato, *TetsujiKato* <7204233170@edu.k.u-tokyo.ac.jp>

IAEA-CN-316-2972

Materials: via Indico sever:



ANALYSIS OF BACKGROUND PLASMA BEHAVIOR UNDER EXTERNAL FIELDS IN THE LOW ENERGY BEAM TRANSPORT SECTION OF LIPAC

Tomonobu Itagaki

Tomonobu Itagaki (QST), Japan

Corresponding Author: Tomonobu Itagaki, *TomonobuItagaki* < *itagaki.tomonobu@qst.go.jp* >

IAEA-CN-316-2973



Materials: via Indico sever:

GYROKINETIC ANALYSIS FOR ELECTRON-SCALE TURBULENCE IN KSTAR FIRE MODE DISCHARGE

Donguk KIM

Donguk KIM (KAIST), Korea, Republic of

Corresponding Author: Donguk KIM, *DongukKIM* < *kdu7529@kaist.ac.kr* >

IAEA-CN-316-2974

Materials: via Indico sever:



ELM SUPPRESSION BY ECCD-CONTROLLED BENIGN MHD MODES IN THE KSTAR TOKAMAK

Jekil Lee

Jekil Lee (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Jekil Lee, *JekilLee* < *jkleee@kfe.re.kr* >

IAEA-CN-316-2975

Materials: via Indico sever:



LEVERAGING TURBULENCE DATA FROM FUSION EXPERIMENTS

Minjun J. Choi

Minjun J. Choi (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Minjun J. Choi, "MinjunJ.Choi" <mjchoi@kfe.re.kr>

IAEA-CN-316-2976

Materials: via Indico sever:



DYNAMICS OF INTERNAL RECONNECTION EVENTS IN VERSATILE EXPERIMENT SPHERICAL TORUS

Myungwon Lee

Myungwon Lee, Korea, Republic of

Corresponding Author: Myungwon Lee, *MyungwonLee* < *mwlee@kaist.ac.kr* >

IAEA-CN-316-2977

Materials: via Indico sever:



SIMULATION OF STOCHASTIC TRANSPORT AND DEPOSITION OF SEED RUNAWAY ELECTRONS DURING ITER SPI

Yuxiang Sun

Yuxiang Sun (Beihang University's School of Physics), China

Corresponding Author: Yuxiang Sun, *YuxiangSun* < *sunyuxiang@buaa.edu.cn* >

IAEA-CN-316-2978

Materials: via Indico sever:



CONJUGATE HEAT TRANSFER LARGE EDDY SIMULATION OF A HYPERVAPOTRON: FROM INCIPIENT NUCLEATE BOILING TO CRITICAL HEAT FLUX

Kyle Damm

Kyle Damm (United Kingdom Atomic Energy Authority), United Kingdom

Corresponding Author: Kyle Damm, *KyleDamm* < *kyle.damm@ukaea.uk* >

IAEA-CN-316-2980

Materials: via Indico sever:



LOWER DENSITY LIMIT FOR ACCESSING TO ELM SUPPRESSION USING N=4 RMP IN EAST

Youwen Sun

Youwen Sun (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Youwen Sun, *Youwen.Sun* < *ywsun@ipp.ac.cn* >

IAEA-CN-316-2981

Materials: via Indico sever:



PROGRESS OF CRAFT NEGATIVE ION SOURCE NEUTRAL BEAM INJECTION TEST FACILITY

Jianglong Wei, Lizhen Liang

*Jianglong Wei (Institute of Plasma Physics, Chinese Academy of Sciences), Lizhen Liang (Institute of
Plasma Physics, Chinese Academy of Sciences), China*

Corresponding Author: Jianglong Wei, Lizhen Liang, *JianglongWei* < *jlwei@ipp.ac.cn* >, *LizhenLiang* < *lzliang@ipp.ac.cn* >

IAEA-CN-316-2982

Materials: via Indico sever:



Study of erosion of ceramic materials under transient thermal load

Alexandr Kasatov

Alexandr Kasatov (Budker Institute of Nuclear Physics), Russia

Corresponding Author: Alexandr Kasatov, *Alexandr Kasatov* < *a.a.kasatov@gmail.com* >

IAEA-CN-316-2983

Materials: via Indico sever:



THEORY OF FAST ION POPULATION EFFECT ON TURBULENCE SELF-REGULATION IN MAGNETIZED FUSION PLASMAS

Gyungjin CHOI

Gyungjin CHOI (Korea Advanced Institute of Science and Technology), Korea, Republic of

Corresponding Author: Gyungjin CHOI, *GyungjinCHOI* <gyungjinc@kaist.ac.kr>

IAEA-CN-316-2984

Materials: via Indico sever:



DESIGN AND DEVELOPMENT OF ITER VUV SPECTROMETERS WITH PROTOTYPE TESTING

Changrae Seon

Changrae Seon (Korea Institute of Fusion Energy, ITER KODA), Korea, Republic of

Corresponding Author: Changrae Seon, *ChangraeSeon* < *crseon@kfe.re.kr* >

IAEA-CN-316-2985

Materials: via Indico sever:



GROWING NONLINEARITY IN KSTAR FIRE MODE PEDESTAL PROVIDES CLUE TO UNDESIRABLE H-MODE TRANSITION IN I-MODE PLASMAS

Chweeho Heo

Chweeho Heo (Seoul National University), Korea, Republic of

Corresponding Author: Chweeho Heo, *ChweehoHeo* < *hcho201@snu.ac.kr* >

IAEA-CN-316-2986

Materials: via Indico sever:



DENSITY DEPENDENCE OF CONVECTION IN PARALLEL HEAT TRANSPORT IN THE SCRAPE-OFF LAYER OF JT-60U

Ryota Matoike

Ryota Matoike, Japan

Corresponding Author: Ryota Matoike, *RyotaMatoike* < *matoike.ryota@qst.go.jp* >

IAEA-CN-316-2987

Materials: via Indico sever:



MODELLING OF MILDLY RELATIVISTIC RUNAWAY ELECTRONS AND DEVELOPMENT OF REDUCED-KINETIC MODEL AND VALIDATION IN KSTAR OHMIC STARTUP

Yeongsun Lee

Yeongsun Lee (Seoul national university/Seoul), Korea, Republic of

Corresponding Author: Yeongsun Lee, *YeongsunLee* <00pago00@gmail.com >

IAEA-CN-316-2988

Materials: via Indico sever:



Overview of the physics design of the EHL-2 spherical torus for proton-Boron fusion

Hua-sheng Xie

Hua-sheng Xie (ENN Science and Technology Development Co., Ltd.), China

Corresponding Author: Hua-sheng Xie, *Hua – shengXie* < *huashengxie@gmail.com* >

IAEA-CN-316-2989

Materials: via Indico sever:



Performance MT-I spherical tokamak with upgraded power supplies system

Sarfraz Ahmad

Sarfraz Ahmad (Pakistan Tokamak Plasma Research Institute), Pakistan

Corresponding Author: Sarfraz Ahmad, *Sarfraz Ahmad* < *sarfrazphys@hotmail.com* >

IAEA-CN-316-2990

Materials: via Indico sever:



PROGRESS IN FUSION WORKFORCE DEVELOPMENT AND EDUCATION IN EUROPE, USA, JAPAN AND ITER

Eva Belonohy

*Eva Belonohy (EUROfusion Consortium, Institute of Plasma Physics of the Czech Academy of Sciences),
Czech Republic*

Corresponding Author: Eva Belonohy, *EvaBelonohy* < *eva.belonohy@euro – fusion.org* >

IAEA-CN-316-2991

Materials: via Indico sever:



Accomplishment of high duty cycle beam commissioning of Linear IFMIF Prototype Accelerator (LIPAc) at 5 MeV, 125 mA D+

Tomoya Akagi

Tomoya Akagi (QST), Japan

Corresponding Author: Tomoya Akagi, *Tomoya.Akagi* <*akagi.tomoya@qst.go.jp*>

IAEA-CN-316-2992

Materials: via Indico sever:



Characteristics of tungsten impurity sources and transport in KSTAR

Juhyeok Jang

Juhyeok Jang (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Juhyeok Jang, *JuhyeokJang* <*jjh4368@kfe.re.kr*>

IAEA-CN-316-2993

Materials: via Indico sever:



A SIMULATION STUDY OF PLASMA BREAKDOWN IN THE TOKAMAK ELECTRON CYCLOTRON PRE-IONIZATION PHASE

Jinwoo Gwak

Jinwoo Gwak (Seoul National University), Korea, Republic of

Corresponding Author: Jinwoo Gwak, *JinwooGwak* < jinwoo.gwak@snu.ac.kr >

IAEA-CN-316-2994

Materials: via Indico sever:



Flux-driven simulations of self-generated radial electric fields and transition to improved confinement regime

Changzhi Jiang

Changzhi Jiang (Beihang University), China

Corresponding Author: Changzhi Jiang, *Changzhi.Jiang* < czj1255@163.com >

IAEA-CN-316-2995

Materials: via Indico sever:



EFFECT OF ELECTRON CYCLOTRON WAVES ON PLASMA WITH RUNAWAY ELECTRONS

Pavel Aleynikov

Pavel Aleynikov (Max-Planck-Institut für Plasmaphysik), Germany

Corresponding Author: Pavel Aleynikov, *PavelAleynikov* < pavel.aleynikov@ipp.mpg.de >

IAEA-CN-316-2996

Materials: via Indico sever:



Nonlinear spectrum evolution of lower hybrid waves and density limit of lower hybrid current drive

Zhe Gao

Zhe Gao (Tsinghua University), China

Corresponding Author: Zhe Gao, *ZheGao* < *gaozhe@tsinghua.edu.cn* >

IAEA-CN-316-2997

Materials: via Indico sever:



EFFECTS OF FINITE ION TEMPERATURE AND ITS GRADIENT ON HASEGAWA-MIMA EQUATION AND ZONAL FLOW GENERATION

Lu Wang

Lu Wang (Huazhong University of Science and Technology), China

Corresponding Author: Lu Wang, *LuWang* < luwang@hust.edu.cn >

IAEA-CN-316-2998

Materials: via Indico sever:



FIRST JT-60SA PLASMA OPERATION AND PLANS IN VIEW OF ITER AND DEMO

Jeronimo Garcia

Jeronimo Garcia (CEA IRFM), France

Corresponding Author: Jeronimo Garcia, *JeronimoGarcia* <jeronimo.garcia@cea.fr>

IAEA-CN-316-2733

Materials: via Indico sever:



A Possible Method to Implement Passive 3d Coils for Runaway Electron Suppression in Future Reactor-Scale Tokamaks

Bo Rao

Bo Rao (Huazhong University of Science and Technology), China

Corresponding Author: Bo Rao, *BoRao* < *borao@hust.edu.cn* >

IAEA-CN-316-3000

Materials: via Indico sever:



BOUNCE-AVERAGED FLUID EQUATIONS FOR INTERCHANGE DYNAMICS IN A DIPOLE-CONFINED PLASMA

Changzhi Jiang

Changzhi Jiang (Beihang University), China

Corresponding Author: Changzhi Jiang, *Changzhi.Jiang* < *czj1255@163.com* >

IAEA-CN-316-3002

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF THE MAST UPGRADE PHYSICS PROGRAMME: TESTING NOVEL CONCEPTS AT LOW ASPECT RATIO TO INFORM FUTURE DEVICES

James Harrison

James Harrison (United Kingdom Atomic Energy Authority), United Kingdom

Corresponding Author: James Harrison, *JamesHarrison* < james.harrison@ukaea.uk >

IAEA-CN-316-3385



Materials: via Indico sever:

Neural network reduced models for plasma turbulence

Zhisong Qu

Zhisong Qu (Nanyang Technological University), Singapore

Corresponding Author: Zhisong Qu, *ZhisongQu* <*zhisong.qu@ntu.edu.sg*>

IAEA-CN-316-3004

Materials: via Indico sever:



Strong toroidal electric field generation during sawtooth crashes

Wei Zhang

Wei Zhang (Institute for Fusion Theory and Simulation, School of Physics, Zhejiang University, Hangzhou, China), China

Corresponding Author: Wei Zhang, *WeiZhang* <wzhang_i_fts@zju.edu.cn>

IAEA-CN-316-3005

Materials: via Indico sever:



Investigation of double frequency fishbone in EAST with neutral beam injection

Wei Shen

Wei Shen (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Wei Shen, *WeiShen* < shenwei@ipp.ac.cn >

IAEA-CN-316-3006

Materials: via Indico sever:



A MATERIAL DATABASE OF SS316L(N)-IG FOR ITER BLANKET SHIELD BLOCKS

Sawoong KIM

Sawoong KIM (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Sawoong KIM, *SawoongKIM* < *swkim12@kfe.re.kr* >

IAEA-CN-316-3008

Materials: via Indico sever:



Simulation of Pulse Quench Propagation in Superconducting Magnets for the Next Generation Compact Fusion Energy Experimental Device

yu chen

yu chen (ä, ä½ç§ä\ éççç\ »ää½"ç©ççç "ç©¶æ), China

Corresponding Author: yu chen, *yuchen* < *yu.chen1@ipp.ac.cn* >

IAEA-CN-316-3009

Materials: via Indico sever:



RESEARCH AT THE KURCHATOV INSTITUTE IN SUPPORT OF THE CREATION OF A HYBRID FUSION-FISSION SYSTEM

Yury Shpanskiy

Yury Shpanskiy (NRC "Kurchatov Institute"), Russia

Corresponding Author: Yury Shpanskiy, *YuryShpanskiy* < *shpanski@mail.ru* >

IAEA-CN-316-3011

Materials: via Indico sever:



Progress of the EHL-2 Spherical Torus Engineering Design

yuanming yang

yuanming yang (ENN Science and Technology Development Co., Ltd.), China

Corresponding Author: yuanming yang, *yuanmingyang* < 13933517113@126.com >

IAEA-CN-316-3012

Materials: via Indico sever:



DATA EFFICIENCY AND LONG-TERM PREDICTION CAPABILITIES FOR NEU- RAL OPERATOR SURROGATE MODELS OF EDGE PLASMA CODES

Naomi Carey

Naomi Carey (UKAEA), United Kingdom

Corresponding Author: Naomi Carey, *NaomiCarey* < naomi.carey@ukaea.uk >

IAEA-CN-316-3013

Materials: via Indico sever:



Experimental investigation of deuterium and nitrogen-seeded H-mode plasmas in KSTAR with new W divertor

Junghoo Hwang

*Junghoo Hwang (Korea Advanced Institute of Science and Technology, Korea Institute of Fusion Energy),
Korea, Republic of*

Corresponding Author: Junghoo Hwang, *JunghooHwang* < *junghoo.hwang@kaist.ac.kr* >

IAEA-CN-316-3014

Materials: via Indico sever:



TRT PLASMA CONTROL COMPLEXES CONCEPTUAL DESIGN ON THE BASE OF THE ITER FUSION TECHNOLOGY DEVELOPMENT

Anatoly Krasilnikov

Anatoly Krasilnikov (Director Institution @Project center ITER"), Russia

Corresponding Author: Anatoly Krasilnikov, *AnatolyKrasilnikov* <*a.krasilnikov@iterrf.ru*>

IAEA-CN-316-3015

Materials: via Indico sever:



Towards Practical Fusion Energy: Engineering Challenges and Development Strategies by the Perspective of CNPE

Li FAN

Li FAN (CNPE), China

Corresponding Author: Li FAN, *LiFAN* < *fanli@cnpe.cc* >

IAEA-CN-316-3016

Materials: via Indico sever:



FUSION MAGNET POWER EQUIPMENT INSTALLATION DESIGN BASED ON MULTI-PHYSICS FIELD COUPLING AND MODULAR OPTIMIZATION

Hong Lei

Hong Lei, China

Corresponding Author: Hong Lei, *HongLei* < *redlei@ipp.ac.cn* >

IAEA-CN-316-3017



Materials: via Indico sever:

ASSESSMENT OF B₄C AS FIRST WALL COATING FOR THERMONUCLEAR REACTOR

Anton Putrik

Anton Putrik (Institution âProject Center ITERâ), Russia

Corresponding Author: Anton Putrik, *AntonPutrik* < *a.putrik@iterrf.ru* >

IAEA-CN-316-3018

Materials: via Indico sever:



FEATURES OF FUSION POWER MEASUREMENTS IN THE NEXT GENERATION MAGNETIC PLASMA CONFINEMENT EXPERIMENTS

Timofey Kormilitsyn

Timofey Kormilitsyn (Institution "Project Center ITER", Moscow, Russia), Russia

Corresponding Author: Timofey Kormilitsyn, *TimofeyKormilitsyn* < *t.kormilitsyn@iterrf.ru* >

IAEA-CN-316-3019



Materials: via Indico sever:

ACHIEVEMENT AT THE ITER NEUTRAL BEAM TEST FACILITY AND PROSPECTS FOR THE R&D ACTIVITIES WITHIN THE ITER RESEARCH PLAN

Diego Marcuzzi

Diego Marcuzzi (Consorzio RFX), Italy

Corresponding Author: Diego Marcuzzi, *DiegoMarcuzzi* < *diego.marcuzzi@igi.cnr.it* >

IAEA-CN-316-3020

Materials: via Indico sever:



RADIOLOGICAL SAFETY ASSESSMENTS FOR FUSION NEUTRON SOURCE IN ENGINEERING DESIGN ACTIVITIES UNDER IFMIF/EVEDA PROJECT

Shunsuke Kenjo

Shunsuke Kenjo (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Shunsuke Kenjo, *ShunsukeKenjo* < *kenjo.shunsuke@qst.go.jp* >

IAEA-CN-316-3021



Materials: via Indico sever:

ACTIVELY COOLED PLASMA FACING COMPONENTS DESIGN FOR W7-X AND JT-60SA IN SUPPORT OF THE ITER DIVERTOR

Marianne Richou

Marianne Richou, France

Corresponding Author: Marianne Richou, *MarianneRichou* < *marianne.richou@cea.fr* >

IAEA-CN-316-3023

Materials: via Indico sever:



FIRST QUANTIFICATION OF VOLUME RECOMBINATION IN W7-X WITH EMC3-EIRENE

Yuhe Feng

Yuhe Feng (Max-Planck-Institute for Plasma Physics), Germany

Corresponding Author: Yuhe Feng, *YuheFeng* < *feng@ipp.mpg.de* >

IAEA-CN-316-3024

Materials: via Indico sever:



Investigation of high Q L-mode plasma operation sustained by enhanced pellet fueling in ITER

JIE ZHANG

*JIE ZHANG (School of Nuclear Science and Technology, University of Science and Technology of China),
China*

Corresponding Author: JIE ZHANG, *JIEZHANG* < jiez111@ustc.edu.cn >

IAEA-CN-316-3025

Materials: via Indico sever:



INVESTIGATION OF IMPURITY BEHAVIOUR IN THREE-ION ICRF SCENARIOS IN H-D AND D-T PLASMAS AT JET

Agata Chomiczewska

Agata Chomiczewska (IPPLM), Poland

Corresponding Author: Agata Chomiczewska, *AgataChomiczewska* < *agata.chomiczewska@ifpilm.pl* >

IAEA-CN-316-3026

Materials: via Indico sever:



INTEGRATED NUMERICAL ANALYSIS OF IMPURITY TRANSPORT AND SOURCES FOR HIGH CURRENTâ"HIGH POWER BASELINE PULSES WITH T IN JET-ILW

Irena Ivanova-Stanik

Irena Ivanova-Stanik (Institute of Plasma Physics and Laser Microfusion), Poland

Corresponding Author: Irena Ivanova-Stanik, *IrenaIvanova–Stanik* < *irena.ivanova–stanik@ifpilm.pl* >

IAEA-CN-316-3027

Materials: via Indico sever:



THEORY AND SIMULATION OF PHASE SPACE TRANSPORT IN BURNING PLASMAS

Fulvio Zonca

Fulvio Zonca (ENEA, Frascati), Italy

Corresponding Author: Fulvio Zonca, *FulvioZonca* < fulvio.zonca@enea.it >

IAEA-CN-316-3028

Materials: via Indico sever:



DEVELOPING MACHINE LEARNING FACILITATED PEDESTAL MODELS

Aaro Järvinen

Aaro Järvinen (VTT), Finland

Corresponding Author: Aaro Järvinen, *AaroJrvinen* <*aaro.jarvinen@vtt.fi*>

IAEA-CN-316-3029

Materials: via Indico sever:



Technologies of high voltage neutral beam injectors for magnetic fusion devices

oleg sotnikov

oleg sotnikov (BINP), Russia

Corresponding Author: oleg sotnikov, *olegsotnikov* < *soz91@rambler.ru* >

IAEA-CN-316-3030

Materials: via Indico sever:



Coupling of Geodesic Acoustic Modes and Resonant Magnetic Perturbations in Fusion Plasmas

Jingchun Li

Jingchun Li (李景春), China

Corresponding Author: Jingchun Li, *JingchunLi* < *lijc@szu.edu.cn* >

IAEA-CN-316-3031

Materials: via Indico sever:



EFFECTS OF INTER-ELM QUASI-COHERENT MODES ON THE DYNAMICS OF PEDESTAL TURBULENCE ON HL-2A TOKAMAK

Zhongbing Shi

Zhongbing Shi (Southwestern Institute of Physics), China

Corresponding Author: Zhongbing Shi, *ZhongbingShi* < *shizb@swip.ac.cn* >

IAEA-CN-316-3032

Materials: via Indico sever:



New insights on the quasicohherent mode in EDA high confinement discharges

Gustavo Grenfell

Gustavo Grenfell (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Gustavo Grenfell, *GustavoGrenfell* < *gustavo.grenfell@ipp.mpg.de* >

IAEA-CN-316-3033

Materials: via Indico sever:



MACHINE LEARNING AIDED NEUTRON YIELD FOR DUD DETECTION BASED ON JET AND TFTR DEUTERIUM-TRITIUM PLASMAS

Lidia piron

Lidia piron (Dipartimento di Fisica e Astronomia, Università degli Studi di Padova), Italy

Corresponding Author: Lidia piron, *Lidiapiron* <lidia.piron@unipd.it>

IAEA-CN-316-3035

Materials: via Indico sever:



PLASMA CONTROL EXPERIMENTS IN JET DEUTERIUM-TRITIUM PLASMAS

Matteo Baruzzo

Matteo Baruzzo (ENEA, Consorzio RFX), Italy

Corresponding Author: Matteo Baruzzo, *MatteoBaruzzo* < *matteo.baruzzo@igi.cnr.it* >

IAEA-CN-316-3038

Materials: via Indico sever:



IMPACT OF LI-GRANULE INJECTION ON THE IMPROVEMENT OF BULK ENERGY AND PARTICLE TRANSPORT AND EXPULSION OF MID/HIGH-Z IMPURITIES IN THE LHD HELIOTRON

Daniel Medina Roque

Daniel Medina Roque (CIEMAT), Spain

Corresponding Author: Daniel Medina Roque, *DanielMedinaRoque* < *daniel.medina@ciemat.es* >

IAEA-CN-316-3041

Materials: via Indico sever:



Improvements of Magnet Power Supply System and Achievements in Coil Energization Tests for First Plasma of JT-60SA

Kunihito Yamauchi

Kunihito Yamauchi (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Kunihito Yamauchi, *KunihitoYamauchi* < *yamauchi.kunihito@qst.go.jp* >

IAEA-CN-316-3043

Materials: via Indico sever:



IMPACT OF TRANSIENT HEAT LOADS ON THE DETACHED MAST UPGRADE SUPER-X DIVERTOR

Rory Scannell

Rory Scannell (United Kingdom Atomic Energy Authority), United Kingdom

Corresponding Author: Rory Scannell, *RoryScannell* < *rory.scannell@ukaea.uk* >

IAEA-CN-316-3044

Materials: via Indico sever:



3D hybrid fluid-kinetic simulations of large scale plasma instabilities in runaway electron beams

Shi-Jie Liu

Shi-Jie Liu (max-planck institute for plasma physics), Germany

Corresponding Author: Shi-Jie Liu, *Shi – JieLiu* < *shi – jie.liu@ipp.mpg.de* >

IAEA-CN-316-3045

Materials: via Indico sever:



SURROGATE MODEL FOR TURBULENT TRANSPORT USING DEEP LEARNING AND PLASMA PROFILE PREDICTION IN TOKAMAK PLASMAS

Yong Xiao

Yong Xiao (Institute for Fusion Theory and Simulation), China

Corresponding Author: Yong Xiao, *YongXiao* < *yxiao@zju.edu.cn* >

IAEA-CN-316-3046

Materials: via Indico sever:



Non-Inductive Current Start-up and Optimized Ramp-up in EXL-50U for Next-Generation Spherical Torus Devices

xinchen Jiang

xinchen Jiang (ENN Science and Technology Development Co., Ltd.), China

Corresponding Author: xinchen Jiang, *xinchen.Jiang* < *jiangxinchen2025@gmail.com* >

IAEA-CN-316-3047

Materials: via Indico sever:



EXHAUST OPERATIONAL SPACE ASSESSMENT FOR THE EUROPEAN VOLUMETRIC NEUTRON SOURCE (EU-VNS)

Sven Wiesen

Sven Wiesen (DIFFER - Dutch Institute for Fundamental Energy Research), Germany

Corresponding Author: Sven Wiesen, *SvenWiesen* < *s.wiesen@dif fer.nl* >

IAEA-CN-316-3048

Materials: via Indico sever:



WEST advanced wall protection achievements toward long pulse operation

Raphael MITTEAU

Raphael MITTEAU (CEA/IRFM), France

Corresponding Author: Raphael MITTEAU, *RaphaelMITTEAU* < *raphael.mitteau@cea.fr* >

IAEA-CN-316-3049

Materials: via Indico sever:



First fast ion measurements by the collective Thomson scattering and ion cyclotron emission diagnostics at Wendelstein 7-X.

Dmitry Moseev

Dmitry Moseev (Max-Planck-Institut für Plasmaphysik), Germany

Corresponding Author: Dmitry Moseev, *DmitryMoseev* < *dmitry.moseev@ipp.mpg.de* >

IAEA-CN-316-3050

Materials: via Indico sever:



Drift-kinetic and fully kinetic simulations of plasma waves based on a geometric Particle-In-Cell discretization of the Vlasov-Maxwell system

Guo Meng

Guo Meng (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Guo Meng, *GuoMeng* < guo.meng@ipp.mpg.de >

IAEA-CN-316-3051

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF THE KSTAR EXPERIMENTS AND FUTURE PLAN

YongUn Nam

YongUn Nam (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: YongUn Nam, *YongUn.Nam* <yunam@kfe.re.kr>

IAEA-CN-316-3392

Materials: via Indico sever:



Fusion research and development strategy for JA DEMO investigated in QST

Hiddenobu Takenaga

Hiddenobu Takenaga (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Hiddenobu Takenaga, *HiddenobuTakenaga* < *takenaga.hiddenobu@qst.go.jp* >

IAEA-CN-316-3053

Materials: via Indico sever:



FEASIBILITY STUDY OF TUNGSTEN-WATER/AIR REACTION IN DEMO CONDITIONS

Damiano Capobianco

Damiano Capobianco (RINA CSM), Italy

Corresponding Author: Damiano Capobianco, *DamianoCapobianco* < *damiano.capobianco@rina.org* >

IAEA-CN-316-3054

Materials: via Indico sever:



STEP: Driving a pathway to accelerated fusion delivery

Howard Wilson

Howard Wilson (UK Industrial Fusion Solutions), United Kingdom

Corresponding Author: Howard Wilson, *HowardWilson* < howard.wilson@ukifs.uk >

IAEA-CN-316-3055

Materials: via Indico sever:



FUSION ALPHA-PARTICLE-DRIVEN ALFVEN EIGENMODES IN JET DT PLASMAS: EXPERIMENTS AND THEORY

Sergei Sharapov

Sergei Sharapov (UKAEA), United Kingdom

Corresponding Author: Sergei Sharapov, *SergeiSharapov* < *sergeisharapov@hotmail.com* >

IAEA-CN-316-3056

Materials: via Indico sever:



VERIFICATION AND OPTIMIZATION OF VDES BY COUPLING THE FREE-BOUNDARY EQUILIBRIUM AND TRANSPORT CODES WITH CONTROL IN THE HL-3 TOKAMAK

Xiao Song

Xiao Song (SWIP,China), China

Corresponding Author: Xiao Song, *XiaoSong* < *songx@swip.ac.cn* >

IAEA-CN-316-3058

Materials: via Indico sever:



BB Segment Grasping Pipeline with Variable Admittance Control for EU DEMO Remote Maintenance

Hjalte Durocher, Xingyu Yang

Hjalte Durocher (Aarhus University, Denmark), Xingyu Yang (Aarhus University, Denmark), Denmark

Corresponding Author: Hjalte Durocher, Xingyu Yang, *HjalteDurocher* < *hdu@mpe.au.dk* >
, *XingyuYang* < *xingyu_yang@mpe.au.dk* >

IAEA-CN-316-3059

Materials: via Indico sever:



Experimental observations of magnetohydrodynamic instabilities in HL-3 low-current high- \hat{I}^2N plasmas

Liming Yu

Liming Yu (Southwestern Institute of Physics), China

Corresponding Author: Liming Yu, *LimingYu* < *yulm@swip.ac.cn* >

IAEA-CN-316-3060

Materials: via Indico sever:



OBSERVATION OF HIGH-FREQUENCY OSCILLATIONS IN THE TUMAN-3M OHMIC PLASMAS

Sergei Lebedev

Sergei Lebedev (Ioffe Institute), Russia

Corresponding Author: Sergei Lebedev, *SergeiLebedev* < *sergei.lebedev@mail.ioffe.ru* >

IAEA-CN-316-3061

Materials: via Indico sever:



OVERVIEW OF THE KSTAR EXPERIMENTS AND FUTURE PLAN

YongUn Nam

YongUn Nam (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: YongUn Nam, *YongUnNam* < *yunam@kfe.re.kr* >

IAEA-CN-316-3003

Materials: via Indico sever:



FIRST EXPERIMENTAL OBSERVATION OF “STAIRCASE” HIGH CONFINEMENT MODE IN TOKAMAK PLASMA

Yi Zhang

Yi Zhang, China

Corresponding Author: Yi Zhang, *YiZhang* < *zhangyi@swip.ac.cn* >

IAEA-CN-316-3063

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF UKAEA'S INTEGRATED FUSION TECHNOLOGY PROGRAMMES, EMPHASISING A DIGITAL FIRST STRATEGY

Rachel Lawless

Rachel Lawless (UKAEA), United Kingdom

Corresponding Author: Rachel Lawless, *RachelLawless* < *rachel.lawless@ukaea.uk* >

IAEA-CN-316-3394

Materials: via Indico sever:



Foams as a Pathway to Energy from Inertial Fusion (FoPIFE): overview of recent results

sebastien Le Pape

sebastien Le Pape (Ecole Polytechnique), France

Corresponding Author: sebastien Le Pape, *sebastienLePape* < *sebastien.le-pape@polytechnique.edu* >

IAEA-CN-316-3066

Materials: via Indico sever:



The X-Point Radiator regime in the WEST tokamak for divertor operation in next step fusion devices

Nicolas RIVALS

Nicolas RIVALS (CEA), France

Corresponding Author: Nicolas RIVALS, *NicolasRIVALS* < *nicolas.rivals@cea.fr* >

IAEA-CN-316-3067

Materials: via Indico sever:



Application of a Design Structure Matrix Methodology to STEP Plasma Control System Design and Sensor Optimisation

Eddie Pennington

Eddie Pennington (UK Atomic Energy Authority), United Kingdom

Corresponding Author: Eddie Pennington, *EddiePennington* < *eddie.pennington@ukaea.uk* >

IAEA-CN-316-3068

Materials: via Indico sever:



Overview of the DONES Experimental Programme

Angel Ibarra

Angel Ibarra (CIEMAT), Spain

Corresponding Author: Angel Ibarra, *AngelIbarra* < *angel.ibarra@ciemat.es* >

IAEA-CN-316-3069

Materials: via Indico sever:



RFX-mod2 and the NEFERTARI project: a diffuse infrastructure for the study of magnetically confined plasmas for fusion

Lionello Marrelli

Lionello Marrelli (Consorzio RFX), Italy

Corresponding Author: Lionello Marrelli, *LionelloMarrelli* < *lionello.marrelli@igi.cnr.it* >

IAEA-CN-316-3070

Materials: via Indico sever:



WEST wall conditioning with boron: lessons for ITER and fusion power plants

Eleonore Geulin

Eleonore Geulin (CEA, IRFM), France

Corresponding Author: Eleonore Geulin, *EleonoreGeulin* < *eleonore.geulin@cea.fr* >

IAEA-CN-316-3072

Materials: via Indico sever:



$n=0$ VERTICAL DISPLACEMENTS, IMPACT OF MAGNETIC X-POINTS, AND VERTICAL DISPLACEMENT OSCILLATORY MODES DRIVEN BY FAST IONS IN TOKAMAK PLASMAS

Francesco Porcelli

Francesco Porcelli (Polytechnic University of Turin), Italy

Corresponding Author: Francesco Porcelli, *FrancescoPorcelli* < *francesco.porcelli@polito.it* >

IAEA-CN-316-3073

Materials: via Indico sever:



A TALE OF TWO (VISCO)CITIES Electromagnetic Turbulence and Transport Bifurcations: Implications for Next- Generation Fusion Power Plants

Daniel Kennedy

Daniel Kennedy (UKAEA), United Kingdom

Corresponding Author: Daniel Kennedy, *DanielKennedy* < *daniel.kennedy@ukaea.uk* >

IAEA-CN-316-3074

Materials: via Indico sever:



RUNAWAY ELECTRONS IN JET " SUMMARY ON RE DATA AFTER THE END OF JET OPERATIONS

Vladislav Plyusnin

Vladislav Plyusnin (Instituto de Plasmas e Fusão Nuclear, Associação EURATOM-IST, Instituto Superior Técnico), Portugal

Corresponding Author: Vladislav Plyusnin, *VladislavPlyusnin* < *vladislav.plyusnin@ipfn.ist.utl.pt* >

IAEA-CN-316-3075

Materials: via Indico sever:



Alpha particle velocity space and orbit sensitivity of gamma-ray spectroscopy diagnostics based on the $^{10}\text{B}(\alpha, p\gamma)^{13}\text{C}$ reaction

Massimo Nocente

Massimo Nocente (Dipartimento di Fisica, Università di Milano-Bicocca), Italy

Corresponding Author: Massimo Nocente, *MassimoNocente* < *massimo.nocente@mib.infn.it* >

IAEA-CN-316-3076

Materials: via Indico sever:



GYROKINETIC SIMULATIONS OF A LOW RECYCLING SCRAPE-OFF LAYER WITHOUT A LITHIUM TARGET

Aaro Järvinen

Aaro Järvinen (VTT), United States

Corresponding Author: Aaro Järvinen, *AaroJrvinen* <*aaro.jarvinen@vtt.fi*>

IAEA-CN-316-3077

Materials: via Indico sever:



FEASIBILITY OF MAIN THERMAL ION HEATING BY ICRF WAVES USING A TOP LAUNCHER IN A TOKAMAK WITH DEUTERIUM-TRITIUM PLASMAS

Jungpyo Lee

Jungpyo Lee (Hanyang university), Korea, Republic of

Corresponding Author: Jungpyo Lee, *JungpyoLee* < *jungpyo@hanyang.ac.kr* >

IAEA-CN-316-3079

Materials: via Indico sever:



Demonstration and Investigation of a Reactor-Relevant, Low-Collisionality, High-Performance, Intrinsic Grassy ELM Regime in DIII-D

Zeyu Li

Zeyu Li (General Atomics), United States

Corresponding Author: Zeyu Li, *ZeyuLi* <*lizeyu@fusion.gat.com*>

IAEA-CN-316-3082

Materials: via Indico sever:



EXPERIMENTAL RESEARCH ON MAGNETOHYDRODYNAMIC (MHD) FLOWS IN LIQUID METAL COOLING SYSTEMS FOR FUSION REACTORS

Ivan Belyaev

Ivan Belyaev (JIHT RAS), Russia

Corresponding Author: Ivan Belyaev, *IvanBelyaev* <bia@ihed.ras.ru>

IAEA-CN-316-3084

Materials: via Indico sever:



Attaining Tokamak level performance through plasma density profile shaping at Wendelstein 7-X

Sebastian Bannmann

Sebastian Bannmann (MPI for Plasma Physics), Germany

Corresponding Author: Sebastian Bannmann, *SebastianBannmann* < *sebastian.bannmann@ipp.mpg.de* >

IAEA-CN-316-3085

Materials: via Indico sever:



The physics basis for implementing Alternative Divertor Configurations on reactors

Kevin Verhaegh

Kevin Verhaegh (CCFE), Netherlands

Corresponding Author: Kevin Verhaegh, *KevinVerhaegh* < *kevin.verhaegh@ukaea.uk* >

IAEA-CN-316-3088

Materials: via Indico sever:



EVOLUTION AND MITIGATION OF RUNAWAY ELECTRONS EMERGING DURING TOKAMAK PLASMA START-UP

Brett Chapman

Brett Chapman (University of Wisconsin-Madison), United States

Corresponding Author: Brett Chapman, *BrettChapman* <*bchapman@wisc.edu*>

IAEA-CN-316-3089

Materials: via Indico sever:



Tokamak formation via localized helicity injection using tangential boundary flows

Pablo Garcia-Martinez

Pablo Garcia-Martinez (CONICET - Centro Atomico Bariloche), Argentina

Corresponding Author: Pablo Garcia-Martinez, *PabloGarcia–Martinez* < pablogm@cab.cnea.gov.ar >

IAEA-CN-316-3091

Materials: via Indico sever:



FIRST EDGE-LOCALIZED MODE SUPPRESSION WITH LOWER HYBRID WAVES ON THE EAST TOKAMAK

Shaocheng Liu

Shaocheng Liu (Donghua University), China

Corresponding Author: Shaocheng Liu, *ShaochengLiu* < *scliu@dhru.edu.cn* >

IAEA-CN-316-3095

Materials: via Indico sever:



NONLOCAL BEHAVIOR OF TURBULENCE IN THE PRESENCE OF POLOIDALLY LOCALIZED HEAT SOURCE

Youngwoo Cho

Youngwoo Cho, Singapore

Corresponding Author: Youngwoo Cho, *YoungwooCho* < youngwoo.cho@ntu.edu.sg >

IAEA-CN-316-3096

Materials: via Indico sever:



ICRF ANTENNA DESIGN FOR THE HL-3 TOKAMAK

LingFeng Lu

LingFeng Lu (Southwestern institute of physics), China

Corresponding Author: LingFeng Lu, *LingFengLu* <*lulingfeng1988@gmail.com*>

IAEA-CN-316-3098

Materials: via Indico sever:



Design studies on advanced self-cooled liquid test blanket modules for JA-DEMO

Teruya Tanaka

Teruya Tanaka (National Institute for Fusion Science), Japan

Corresponding Author: Teruya Tanaka, *TeruyaTanaka* < *tanaka.teruya@nifs.ac.jp* >

IAEA-CN-316-3100

Materials: via Indico sever:



Overview of ASDEX Upgrade results

Thomas Pütterich

Thomas Pütterich (Max-Planck-Institut für Plasmaphysik), Germany

Corresponding Author: Thomas Pütterich, *ThomasPtterich* < thomas.puetterich@ipp.mpg.de >

IAEA-CN-316-3052

Materials: via Indico sever:



HL-3 RESEARCH TOWARDS HIGH-PERFORMANCE PLASMA AND POWER EXHAUST SOLUTION

Wulyu Zhong

Wulyu Zhong (Southwestern Institute of Physics), China

Corresponding Author: Wulyu Zhong, *WulyuZhong* < *zhongwl@swip.ac.cn* >

IAEA-CN-316-3258

Materials: via Indico sever:



NEW UNDERSTANDING OF RESONANT LAYER RESPONSE VIA EXTENDED DRIFT MHD

Jong Kyu Park

Jong Kyu Park (Seoul National University), Korea, Republic of

Corresponding Author: Jong Kyu Park, *JongKyuPark* < *jkpark@snu.ac.kr* >

IAEA-CN-316-3103

Materials: via Indico sever:



REGULATORY FRAMEWORK TOWARDS FUSION ENERGY IN GERMANY

Jens-Uwe Schmollack

Jens-Uwe Schmollack (TUV Rheinland), Germany

Corresponding Author: Jens-Uwe Schmollack, *Jens – UweSchmollack* < *schmollu@de.tuv.com* >

IAEA-CN-316-3104

Materials: via Indico sever:



A mechanism to trigger edge localized mode crash due to a threshold of magnetic perturbation driven by peeling-ballooning mode

Wenjin Chen

Wenjin Chen (Southwestern Institute of Physics), China

Corresponding Author: Wenjin Chen, *WenjinChen* < *chenwj@swip.ac.cn* >

IAEA-CN-316-3105

Materials: via Indico sever:



Dynamic Evolution of Pellet Fueling from Ablation Cloud to Reheat Mode in Heliotron J

Shinichiro Kado

Shinichiro Kado (Institute of Advanced Energy, Kyoto University), Japan

Corresponding Author: Shinichiro Kado, *ShinichiroKado* < *kado@iae.kyoto-u.ac.jp* >

IAEA-CN-316-3107

Materials: via Indico sever:



NONLINEAR MAGNETOHYDRODYNAMIC MODELLING OF IDEAL BALLOONING MODES IN HIGH-BETA WENDELSTEIN 7-X PLASMAS

Yao Zhou

Yao Zhou (Shanghai Jiao Tong University), China

Corresponding Author: Yao Zhou, YaoZhou < yaozhou.pppl@gmail.com >

IAEA-CN-316-3108

Materials: via Indico sever:



EFFECTS OF ZONAL FIELDS ON ENERGETIC-PARTICLE EXCITATIONS OF REVERSED-SHEAR ALFVÄN EIGENMODES

Ruirui MA

Ruirui MA (Southwestern Institute of Physics), China

Corresponding Author: Ruirui MA, *RuiruiMA* < rrma@swip.ac.cn >

IAEA-CN-316-3109

Materials: via Indico sever:



Energetic-electron-driven Geodesic Acoustic Mode Interaction with Microtearing Mode for Improved Confinement on HL-3 Tokamak

Shiqin Wang

Shiqin Wang (Southwestern Institute of Physics), China

Corresponding Author: Shiqin Wang, *ShiqinWang* < *wangshiqin@swip.ac.cn* >

IAEA-CN-316-3110

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF RECENT EXPERIMENTAL RESULTS ON EAST IN SUPPORT OF ITER NEW RESEARCH PLAN

Xianzu Gong

Xianzu Gong (Institute of Plasma Physics, Chinese Academy Sciences), China

Corresponding Author: Xianzu Gong, *XianzuGong* <*xz_gong@ipp.ac.cn*>

IAEA-CN-316-3400

Materials: via Indico sever:



A COMPREHENSIVE DESIGN OF THE UPPER PORT #18 INTERSPACE SUPPORT STRUCTURE FOR THE ITER DIAGNOSTIC PORT

Jaemin Kim

Jaemin Kim (KFE), Korea, Republic of

Corresponding Author: Jaemin Kim, *JaeminKim* <*jmkim@kfe.re.kr*>

IAEA-CN-316-3112

Materials: via Indico sever:



Influence of resonant magnetic perturbation on flow and turbulence dynamics towards L-H transition in HL-3

Min Jiang

Min Jiang (Southwestern Institute of Physics), China

Corresponding Author: Min Jiang, *MinJiang* < *jiangm@swip.ac.cn* >

IAEA-CN-316-3114

Materials: via Indico sever:



OPERATIONAL SPACE OF SMALL ELM AND ELM-FREE REGIMES ON HL-3 TOKAMAK

Na Wu

Na Wu, China

Corresponding Author: Na Wu, *NaWu* < *wuna@swip.ac.cn* >

IAEA-CN-316-3115

Materials: via Indico sever:



LONG-PULSE ELM-FREE H-MODE REGIME WITH FEEDBACK-CONTROLLED DETACHMENT UNDER BORONIZED METAL WALL IN EAST

Guosheng Xu

Guosheng Xu (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Guosheng Xu, *GuoshengXu* < *gsxu@ipp.ac.cn* >

IAEA-CN-316-3116

Materials: via Indico sever:



Advancing Tritium Fueling for DT Fusion in HL-3: Innovations in SMBI Techniques and Physics-Based Tritium Fueling Strategies

Guoliang Xiao

Guoliang Xiao (Southwestern Institute of Physics^{1/4}China), China

Corresponding Author: Guoliang Xiao, *GuoliangXiao* < *xiaogl@swip.ac.cn* >

IAEA-CN-316-3117

Materials: via Indico sever:



Exploration of magnetic perturbation effects on plasma edge transport for advanced divertor configurations in HL-3

Dongmei FAN

Dongmei FAN (Southwestern Institute of Physics, Chengdu, China), China

Corresponding Author: Dongmei FAN, *DongmeiFAN* < *fandongmei@swip.ac.cn* >

IAEA-CN-316-3118

Materials: via Indico sever:



Pressure gradient driven core-localized electromagnetic instability in the plasma with a weak magnetic shear on HL-2A tokamak

peiwan shi

peiwan shi (Southwestern Institute of Physics), China

Corresponding Author: peiwan shi, *peiwanshi* < *shipw@swip.ac.cn* >

IAEA-CN-316-3119

Materials: via Indico sever:



PROGRESS OF CORE-EDGE INTEGRATED TUNGSTEN TRANSPORT STUDY IN EAST WITH ITER-LIKE TUNGSTEN DIVERTORS USING ADVANCED IMPURITY DIAGNOSTICS

Ling ZHANG

Ling ZHANG (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Ling ZHANG, *LingZHANG* < *zhangling@ipp.ac.cn* >

IAEA-CN-316-3123

Materials: via Indico sever:



GLOBAL DISPERSION AND NONLINEAR DYNAMICS IN PLASMAS MODELED FOR JT-60U STRONGLY REVERSED MAGNETIC SHEAR CONFIGURATION EXHIBITING A SIGNATURE OF ITBS FROM L-MODE CHARACTERISTICS

Rui Zhao

Rui Zhao (Kyoto University), Japan

Corresponding Author: Rui Zhao, *RuiZhao* < *zhao.rui.27d@st.kyoto-u.ac.jp* >

IAEA-CN-316-3124

Materials: via Indico sever:



THE IMPURITY BEHAVIORS AND TRANSPORT ANALYSIS OF HL-2A AND HL-3 PLASMAS

Liang Liu

Liang Liu (Southwestern Institute of Physics), China

Corresponding Author: Liang Liu, *LiangLiu* < *liuliang@swip.ac.cn* >

IAEA-CN-316-3125

Materials: via Indico sever:



Progress in the concept development of the VNS - a beam-driven tokamak for component testing

CHRISTIAN Bachmann

CHRISTIAN Bachmann (EUROfusion), Germany

Corresponding Author: CHRISTIAN Bachmann, *CHRISTIAN Bachmann* <christian.bachmann@eurofusion.org>

IAEA-CN-316-3126

Materials: via Indico sever:



Recent Progress of Dissimilar Material Bonding Technique with Spark Plasma Sintering Method for High Heat Load Plasma Facing Components in Reactor-relevant Devices

Tomohiro Morisaki

Tomohiro Morisaki (National Institute for Fusion Science), Japan

Corresponding Author: Tomohiro Morisaki, *TomohiroMorisaki* < *morisaki@nifs.ac.jp* >

IAEA-CN-316-3127

Materials: via Indico sever:



Towards a Stellarator Fusion Reactor: Achievements of the European Stellarator Program

Felix Warmer

Felix Warmer (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Felix Warmer, *FelixWarmer* < *felix.warmer@ipp.mpg.de* >

IAEA-CN-316-3128

Materials: via Indico sever:



HELIUM ASH REMOVAL: COMPREHENSIVE EFFECTS OF ALPHA PARTICLES ON THE SOURCE AND TRANSPORT OF HELIUM ASH

Weixin Guo

Weixin Guo (Huazhong University of Science and Technology), China

Corresponding Author: Weixin Guo, *WeixinGuo* <wxguo@hust.edu.cn >

IAEA-CN-316-3130

Materials: via Indico sever:



THREE-DIMENSIONAL NONLINEAR MODELING OF ELM DYNAMICS WITH BIASING IN THE HL-3 TOKAMAK

Jie HUANG

Jie HUANG (Southwestern Institute of Physics), China

Corresponding Author: Jie HUANG, *JieHUANG* < *huangjie@swip.ac.cn* >

IAEA-CN-316-3131

Materials: via Indico sever:



Simulations of the interactions between ELMs and edge turbulences on fusion reactor scale facilities

Tianyang Xla

Tianyang Xla (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Tianyang Xla, *TianyangXla* < *xiaty@ipp.ac.cn* >

IAEA-CN-316-3134

Materials: via Indico sever:



PROGRESS IN FIRST-PRINCIPLES BOUNDARY SIMULATIONS OF PLASMA TURBULENCE AND NEUTRAL DYNAMICS WITH THE GBS CODE

Paolo Ricci

*Paolo Ricci (Ecole Polytechnique Fédérale de Lausanne Ecole Polytechnique Fédérale de Lausanne
(EPFL), Swiss Plasma Center (SPC)), Switzerland*

Corresponding Author: Paolo Ricci, *PaoloRicci* < *paolo.ricci@epfl.ch* >

IAEA-CN-316-3135

Materials: via Indico sever:



Engineering Design, Construction, and Flexible Control of Magnetic Field Configuration of Quasi-axisymmetric Stellarator CFQS-T

Mitsutaka Isobe

Mitsutaka Isobe (National Institute for Fusion Sciences), Japan

Corresponding Author: Mitsutaka Isobe, *MitsutakaIsobe* <*isobe.mitsutaka@nifs.ac.jp*>

IAEA-CN-316-3136

Materials: via Indico sever:



ION AND ELECTRON HEATING VIA MAGNETIC RECONNECTION DURING MERGING/COMPRESSION PLASMA STARTUP IN ST40

Hiroshi Tanabe

Hiroshi Tanabe (Graduate school of frontier sciences, university of Tokyo), Japan

Corresponding Author: Hiroshi Tanabe, *HiroshiTanabe* < *tanabe@k.u – tokyo.ac.jp* >

IAEA-CN-316-3137



Materials: via Indico sever:

CHARACTERISTICS OF HIGH FREQUENCY TURBULENCE DURING EDGE LOCALIZED MODES IN THE HL-2A TOKAMAK

Guanqun Xue

Guanqun Xue (Dalian University of Technology; Southwestern Institute of Physics), China

Corresponding Author: Guanqun Xue, *Guanqun.Xue* <*gqxue@mail.dlut.edu.cn*>

IAEA-CN-316-3138

Materials: via Indico sever:



FAST ION TRANSPORT INDUCED BY EDGE LOCALIZED MODES

Haotian Chen

Haotian Chen (Southwestern Institute of Physics), China

Corresponding Author: Haotian Chen, *HaotianChen* < *chenhaotian@swip.ac.cn* >

IAEA-CN-316-3139

Materials: via Indico sever:



DISRUPTION PREDICTION FOR FUTURE TOKAMAK REACTORS FROM DIFFERENT PERSPECTIVES AND WITH DIFFERENT METHODS

Wei Zheng, Xinkun Ai

*Wei Zheng (International Joint Research Laboratory of Magnetic Confinement Fusion and Plasma Physics,
Huazhong University of Science and Technology), Xinkun Ai (International Joint Research Laboratory of
Magnetic Confinement Fusion and Plasma Physics, School of Electrical and Electronic Engineering,
Huazhong University of Science and Technology), China*

Corresponding Author: Wei Zheng, Xinkun Ai, *WeiZheng* < zhengwei@hust.edu.cn >, *XinkunAi* < aixk@hust.edu.cn >

IAEA-CN-316-3140

Materials: via Indico sever:



Impact of the Plasma Boundary on Machine Operation, and the Risk Mitigation Strategy on JET

Hongjuan Sun

Hongjuan Sun (UKAEA/CCFE, Culham Science Centre), United Kingdom

Corresponding Author: Hongjuan Sun, *HongjuanSun* < *hongjuan.sun@ukaea.uk* >

IAEA-CN-316-3141

Materials: via Indico sever:



Progress and innovations in the TCV tokamak research programme

Christian Theiler

Christian Theiler (EPFL-SPC), Switzerland

Corresponding Author: Christian Theiler, *ChristianTheiler* < *christian.theiler@epfl.ch* >

IAEA-CN-316-2855

Materials: via Indico sever:



FDTD SIMULATION OF THE PROPAGATION CHARACTERISTICS OF MILLIMETER-WAVE VORTEX IN MAGNETIZED PLASMA

Chenxu Wang

Chenxu Wang, Japan

Corresponding Author: Chenxu Wang, *ChenxuWang* < wang.chenxu@nifs.ac.jp >

IAEA-CN-316-3143



Materials: via Indico sever:

THE 2024 NEW BASELINE ITER RESEARCH PLAN

Siwoo Yoon

Siwoo Yoon (Korea Institute of Fusion Energy), India

Corresponding Author: Siwoo Yoon, *SiwooYoon* < *swyoon@kfe.re.kr* >

IAEA-CN-316-3144

Materials: via Indico sever:



ENDOSCOPE LASER-INDUCED BREAKDOWN SPECTROSCOPY (LIBS) FOR IN SITU ELEMENTAL DISTRIBUTION DIAGNOSIS ON THE SURFACE OF DIVERTOR IN EAST

Cong Li

Cong Li (Dalian University of Technology), China

Corresponding Author: Cong Li, *CongLi* < *cli@dlut.edu.cn* >

IAEA-CN-316-3145

Materials: via Indico sever:



DEVELOPMENT OF METER-SCALE LARGE W/CU DIVERTOR COMPONENTS FOR FUSION REACTOR AT ASIPP

Xuebing PENG

Xuebing PENG, China

Corresponding Author: Xuebing PENG, *XuebingPENG* < *pengxb@ipp.ac.cn* >

IAEA-CN-316-3146

Materials: via Indico sever:



PROGRESS OF LOWER HYBRID CURRENT DRIVE EXPERIMENT TOWARDS LONG-PULSE OPERATION ON EAST

Miaohui LI

Miaohui LI (Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP)), China

Corresponding Author: Miaohui LI, *MiaohuiLI* < *mhli@ipp.ac.cn* >

IAEA-CN-316-3147

Materials: via Indico sever:



COUPLED PARTICLE-MHD SIMULATIONS OF INTERACTIONS BETWEEN EDGE LOACALIZED MODES AND NEUTRALS AND IMPURITIES USING JOREK CODE

Zhe Liang

Zhe Liang (Dalian University of Technology), China

Corresponding Author: Zhe Liang, *ZheLiang* <liangzhect@outlook.com >

IAEA-CN-316-3148

Materials: via Indico sever:



ESTABLISHING AFRICAN FUSION ENERGY RESEARCH CONSORTIUM: CAPACITY BUILDING AND INNOVATION PATHWAY

Umar F Ahmad

Umar F Ahmad, Nigeria

Corresponding Author: Umar F Ahmad, *UmarF Ahmad* < ufahmad.crest@buk.edu.ng >

IAEA-CN-316-3149



Materials: via Indico sever:

DEVELOPMENT AND FUTURE PLAN OF THE NEGATIVE HYDROGEN ION SOURCES FOR NBI AT SWIP

Miao Zhao

Miao Zhao (Southwestern Institute of Physics), China

Corresponding Author: Miao Zhao, *MiaoZhao* < *zhaomiao@swip.ac.cn* >

IAEA-CN-316-3150

Materials: via Indico sever:



EXTRACTING THE NEAREST CANONICAL EQUILIBRIUM DISTRIBUTION VIA NATURAL GRADIENT DESCENT METHOD

Chao Li

Chao Li (Peking University), China

Corresponding Author: Chao Li, *ChaoLi* < 2101110153@stu.pku.edu.cn >

IAEA-CN-316-3151



Materials: via Indico sever:

Recent Experiments and Development of LHCD system on HL-3

Xingyu Bai

Xingyu Bai (CnSWIP), China

Corresponding Author: Xingyu Bai, *XingyuBai* < *baixy@swip.ac.cn* >

IAEA-CN-316-3152

Materials: via Indico sever:



A Physics-Informed Neural Network for Real-Time, Data-Efficient Plasma Equilibrium Reconstruction in SUNIST-2

Yuhang Luo

Yuhang Luo (Startorus Fusion, China), China

Corresponding Author: Yuhang Luo, *YuhangLuo* <18810663237@163.com>

IAEA-CN-316-3153

Materials: via Indico sever:



OVERVIEW OF RECENT RESULTS IN RESEARCH TACKLING REMOTE MAINTENANCE CHALLENGES OF FUTURE FUSION ENERGY DEVICES

Robert Skilton

Robert Skilton (UK Atomic Energy Authority), United Kingdom

Corresponding Author: Robert Skilton, *RobertSkilton* < *robert.skilton@ukaea.uk* >

IAEA-CN-316-3154

Materials: via Indico sever:



Numerical study on power coupling and Impurity sputtering near an ICRF antenna

Lei-Yu Zhang

Lei-Yu Zhang (Dalian University of Technology), China

Corresponding Author: Lei-Yu Zhang, *Lei – YuZhang* < 568823638@qq.com >

IAEA-CN-316-3155

Materials: via Indico sever:



Preliminary design and development of neutron activation system on CN HCCB TBS

Qijie Wang

Qijie Wang (SouthWestern Institute of Physics), China

Corresponding Author: Qijie Wang, *QijieWang* < *wangqj@swip.ac.cn* >

IAEA-CN-316-3156

Materials: via Indico sever:



A PROPOSED NEW EXPERIMENTAL STELLARATOR: VARIABLE SYMMETRY TORUS

Hiroyuki Yamaguchi

Hiroyuki Yamaguchi (National Institute for Fusion Science), Japan

Corresponding Author: Hiroyuki Yamaguchi, *HiroyukiYamaguchi* < *yamaguchi.hiroyuki@nifs.ac.jp* >

IAEA-CN-316-3157

Materials: via Indico sever:



A New Eigenvalue Solver for Electrostatic Drift-Wave Instabilities in Tokamaks

Jie Wang

Jie Wang (University of Science and Technology of China), China

Corresponding Author: Jie Wang, *JieWang* < wangj19@mail.ustc.edu.cn >

IAEA-CN-316-3158

Materials: via Indico sever:



MITIGATION OF ELM BY 3D MAGNETIC PERTURBATIONS IN HL-3/HL-2A TOKAMAKS

Guangzhou Hao

Guangzhou Hao (Southwestern institute of physics), China

Corresponding Author: Guangzhou Hao, *GuangzhouHao* < *haogz@swip.ac.cn* >

IAEA-CN-316-3160

Materials: via Indico sever:



Investigation of transient transport dynamics induced by compact torus injection in the EAST tokamak

zhihao zhao

zhihao zhao (Hefei University of Technology), China

Corresponding Author: zhihao zhao, *zhihaozhao* <1355683029@qq.com>

IAEA-CN-316-3161

Materials: via Indico sever:



VALIDATION OF PLASMA -WALL SELF-ORGANIZATION THEORY BY HIGH DENSITY LIMITS ACHIEVED ON EAST

Jiaxing Liu

Jiaxing Liu (Huazhong University of Science and Technology), China

Corresponding Author: Jiaxing Liu, *JiaxingLiu* <liu_jiaxing@hust.edu.cn>

IAEA-CN-316-3162

Materials: via Indico sever:



LOW-THRESHOLD ABSOLUTE PARAMETRIC DECAY INSTABILITY IN X2-MODE ECRH EXPERIMENTS AND THE MISSING POWER EFFECT

Evgenii Gusakov

Evgenii Gusakov (Ioffe Institute), Russia

Corresponding Author: Evgenii Gusakov, *EvgeniiGusakov* < *evgeniy.gusakov@mail.ioffe.ru* >

IAEA-CN-316-3163

Materials: via Indico sever:



EXPERIMENTAL STUDY OF THE 2/1 MODE RMP ON THE RUNAWAY CURRENT SUPPRESSION DURING DISRUPTIONS ON J-TEXT

Zhifang Lin

Zhifang Lin (School of Electricl Engineering Automation, Jiangsu Normal University), China

Corresponding Author: Zhifang Lin, *Zhi fangLin* < *xiaomailin@126.com* >

IAEA-CN-316-3166

Materials: via Indico sever:



DECODING THE CAUSES OF HIGH-DENSITY DISRUPTION THROUGH INTERPRETABLE MACHINE LEARNING

Chengshuo Shen

Chengshuo Shen (Huazhong University of Science and Technology), China

Corresponding Author: Chengshuo Shen, *ChengshuoShen* < *woshiscsl@gmail.com* >

IAEA-CN-316-3167

Materials: via Indico sever:



Conceptual Design Study for Downsizing of Fusion DEMO Reactor

Hiroyasu Utoh

Hiroyasu Utoh (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Hiroyasu Utoh, *HiroyasuUtoh* < *uto.hiroyasu@qst.go.jp* >

IAEA-CN-316-3169

Materials: via Indico sever:



SAWTEETH DYNAMICS IN JT-60SA BASELINE SCENARIOS WITH EFFECTS ON NTM ONSET

Silvana NOWAK

Silvana NOWAK (ISTP-CNR, Milano, Italy), Italy

Corresponding Author: Silvana NOWAK, *SilvanaNOWAK* < *silvana.nowak@istp.cnr.it* >

IAEA-CN-316-3171

Materials: via Indico sever:



VALIDATION OF GKEYLL GYROKINETIC TURBULENCE SIMULATIONS AGAINST TCV EXPERIMENTAL DATA AND TRIANGULARITY PHYSICS

Antoine Hoffmann

Antoine Hoffmann (PPPL), United States

Corresponding Author: Antoine Hoffmann, *AntoineHoffmann* <ahoffman@pppl.gov >

IAEA-CN-316-3174



Materials: via Indico sever:

ENHANCED SURGE PROTECTIONS FOR DC ULTRA-HIGH VOLTAGE POWER SUPPLY FOR ITER NBI

Shoichi Hatakeyama

Shoichi Hatakeyama (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Shoichi Hatakeyama, *ShoichiHatakeyama* < *hatakeyama.shoichi@qst.go.jp* >

IAEA-CN-316-3177

Materials: via Indico sever:



AUGMENTING THE EXTRAPOLATION CAPABILITY OF DISRUPTION PREDICTION TO EXTENDED PARAMETER REGIMES BY PREDICT-FIRST NEURAL NETWORK

Zongyu Yang

Zongyu Yang, China

Corresponding Author: Zongyu Yang, *ZongyuYang* < *zy – yang@swip.ac.cn* >

IAEA-CN-316-3178

Materials: via Indico sever:



Design and Optimization of Advanced Divertor Configurations for Heat Flux Management in the EHL-2 Spherical Torus Project

Xiang gU

Xiang gU, China

Corresponding Author: Xiang gU, *XianggU* < *guxiangc@enn.cn* >

IAEA-CN-316-3179

Materials: via Indico sever:



Drift flows impact island divertor operation in Wendelstein 7-X

Carsten Killer

Carsten Killer (Max-Planck-Institute for Plasma Physics, Greifswald, Germany), Germany

Corresponding Author: Carsten Killer, *CarstenKiller* < *carsten.killer@ipp.mpg.de* >

IAEA-CN-316-3182

Materials: via Indico sever:



[OV POSTER TWIN] RECENT ADVANCES IN PLASMA CONTROL AND PHYSICS RESEARCH IN THE LARGE HELICAL DEVICE

Kenji Tanaka

Kenji Tanaka (National Institute for Fusion Science), Japan

Corresponding Author: Kenji Tanaka, *KenjiTanaka* < *tanaka.kenji@nifs.ac.jp* >

IAEA-CN-316-3384

Materials: via Indico sever:



Accelerating multiscale simulations of irradiated material properties using machine learning

Linyun Liang

Linyun Liang (Beihang University), China

Corresponding Author: Linyun Liang, *LinyunLiang* < *lyliang@buaa.edu.cn* >

IAEA-CN-316-3186

Materials: via Indico sever:



Radiation shielding analysis of IFMIF-DONES Test Cell and adjacent rooms

Arkady Serikov

Arkady Serikov (Karlsruhe Institute of Technology (KIT)), Germany

Corresponding Author: Arkady Serikov, *ArkadySerikov* < *arkady.serikov@kit.edu* >

IAEA-CN-316-3190

Materials: via Indico sever:



Kinetic modeling of tungsten transport induced by low-n X-point mode

Huayi Chang

Huayi Chang (Dalian University of Technology), China

Corresponding Author: Huayi Chang, *HuayiChang* < changhy@mail.dlut.edu.cn >

IAEA-CN-316-3192

Materials: via Indico sever:



SIMULATION OF DEUTERIUM-TRITIUM ISOTOPE EFFECTS ON THE DIVERTOR TARGET HEAT FLUX DENSITY IN CFEDR

Chen Zhang

Chen Zhang (张晨), China

Corresponding Author: Chen Zhang, *ChenZhang* < *zhangchen2013@dlut.edu.cn* >

IAEA-CN-316-3193

Materials: via Indico sever:



R&D on W First Wall for ITER and Future Fusion Reactors

Jiming Chen

Jiming Chen (Southwestern Institute of Physics), China

Corresponding Author: Jiming Chen, *JimingChen* < *chenjm@swip.ac.cn* >

IAEA-CN-316-3194

Materials: via Indico sever:



SIMULATING ENERGETIC PARTICLE DYNAMICS USING OPERATOR NEURAL NETWORKS WITH SPATIAL TRANSLATION INVARIANCE

Jian LIU

Jian LIU (Shandong University), China

Corresponding Author: Jian LIU, *JianLIU* <liu.jian@sdu.edu.cn >

IAEA-CN-316-3195

Materials: via Indico sever:



Completion of Manufacturing and Testing of 8 ITER Gyrotrons with its Auxiliary Systems

Ken Kajiwara

Ken Kajiwara (National Institutes for Quantum and Radiological Science and Technology), Japan

Corresponding Author: Ken Kajiwara, *KenKajiwara* < *kajiwara.ken@qst.go.jp* >

IAEA-CN-316-3197

Materials: via Indico sever:



Realization of direct internal recycling for DEMO fuel cycle based on a novel cryopump configuration

Zhaoxi Chen

Zhaoxi Chen (ASIPP), China

Corresponding Author: Zhaoxi Chen, *ZhaoxiChen* < *chenzx@ipp.ac.cn* >

IAEA-CN-316-3198

Materials: via Indico sever:



Experimental studies on the effect of turbulence-driven edge poloidal shear flow on tokamak plasma confinement

Ting Long

Ting Long (Southwestern Institute of Physics), China

Corresponding Author: Ting Long, *TingLong* < *longt@swip.ac.cn* >

IAEA-CN-316-3199

Materials: via Indico sever:



[OV POSTER TWIN] Results from the last DD and DT JET campaigns in the framework of the EUROfusion Tokamak Exploitation activity

Marco Wischmeier

Marco Wischmeier (IPP Garching), Italy

Corresponding Author: Marco Wischmeier, *MarcoWischmeier* < *marco.wischmeier@ipp.mpg.de* >

IAEA-CN-316-3387

Materials: via Indico sever:



PROGRESS ON THE ENGINEERING QUALIFICATION OF CN-RAFM STEEL

Guoping YANG

Guoping YANG (Southwestern Institute of Physics), China

Corresponding Author: Guoping YANG, *GuopingYANG* < yanggp@swip.ac.cn >

IAEA-CN-316-3201

Materials: via Indico sever:



Fast ion transport in presence of magnetic perturbations using full-orbit and guiding-center simulations

Julio Martinell

Julio Martinell (Nuclear Sciences Institute, National Autonomous University of Mexico), Mexico

Corresponding Author: Julio Martinell, *JulioMartinell* < *martinel@nucleares.unam.mx* >

IAEA-CN-316-3202

Materials: via Indico sever:



THE DEVELOPMENT OF 3D MHD CODE IN COMSOL MULTIPHYSICS AND ITS APPLICATION FOR MHD FLOW IN RIPPLED MAGNETIC FIELD

Jun Wang

Jun Wang (Southwestern Institute of Physics), China

Corresponding Author: Jun Wang, *JunWang* < *jwangcn@qq.com* >

IAEA-CN-316-3203

Materials: via Indico sever:



Helium Cooled Ceramic Breeder Testing Blanket System Heat Release and Tritium Release for the ITER New Baseline DT-1 Scenario in the Port Cell

RuYan Li

RuYan Li (Southwestern Institute of Physics), China

Corresponding Author: RuYan Li, *RuYanLi* <*liry@swip.ac.cn*>

IAEA-CN-316-3204

Materials: via Indico sever:



Magnetic flux surface mapping system at Chinese First Quasi-axisymmetric Stellarator

Xirui Liu

Xirui Liu (Institute of Fusion Science, School of Physical Science and Technology, Southwest Jiaotong University), China

Corresponding Author: Xirui Liu, *XiruiLiu* < *siriliu@my.swjtu.edu.cn* >

IAEA-CN-316-3205

Materials: via Indico sever:



Linear and quasi-linear toroidal modeling of resonant magnetic perturbations during ELMs mitigation in HL-3

Neng Zhang

Neng Zhang (Southwestern Institute of Physics), China

Corresponding Author: Neng Zhang, *NengZhang* < *zhangn@swip.ac.cn* >

IAEA-CN-316-3206

Materials: via Indico sever:



NATURAL SMALL ELMS ACHIEVED AT LOW PEDESTAL COLLISIONALITY (<1) IN A METAL WALL ENVIRONMENT ON EAST

Y.F. Wang

Y.F. Wang (ASIPP), China

Corresponding Author: Y.F. Wang, "Y.F.Wang" <yfwang@ipp.ac.cn >

IAEA-CN-316-3207



Materials: via Indico sever:

INFERNAL-KINK INSTABILITY IN NEGATIVE-TRIANGULARITY PLASMAS WITH NEGATIVE CENTRAL SHEAR

LI LI

LI LI (Donghua University), China

Corresponding Author: LI LI, *LILI* < *lili8068@dhu.edu.cn* >

IAEA-CN-316-3208

Materials: via Indico sever:



PROGRESS ON REAL-TIME DENSITY CONTROL CAPABILITY OF THE KSTAR TOKAMAK

June-Woo Juhn

June-Woo Juhn (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: June-Woo Juhn, *June – WooJuhn* <*jwjuhn@kfe.re.kr*>

IAEA-CN-316-3209

Materials: via Indico sever:



Ion Doppler Spectroscopy System on the SUNIST-2 Spherical Tokamak

Menghua Yang

Menghua Yang (Startorus Fusion Ltd), China

Corresponding Author: Menghua Yang, *MenghuaYang* < yangmenghua@startorus.cn >

IAEA-CN-316-3210

Materials: via Indico sever:



DYNAMICS OF TURBULENCE AND ZONAL FLOWS EFFECTED BY TUNGSTEN IMPURITY IN HL-2A EDGE PLASMAS

Qian Zou

Qian Zou (Institute of Fusion Science, School of Physical Science and Technology, Southwest Jiaotong University, Chengdu 610031, People's Republic of China), China

Corresponding Author: Qian Zou, QianZou < qianzou@my.swjtu.edu.cn >

IAEA-CN-316-3211

Materials: via Indico sever:



Achieving Full-Coverage Liquid GaInSn Film Flow under Magnetic Fields: Synergistic Effects of Wettability Optimization and Dual-Layer Structural Design

Yiming Wang

Yiming Wang (Southwestern Institute of Physics, CNNC), China

Corresponding Author: Yiming Wang, *YimingWang* < wangym@swip.ac.cn >

IAEA-CN-316-3212

Materials: via Indico sever:



IN-SITU CALIBRATION OF NEUTRON FLUX MONITOR FOR HL-3 TOKAMAK

Guoliang Yuan

Guoliang Yuan (Southwestern Institute of Physics), China

Corresponding Author: Guoliang Yuan, *GuoliangYuan* < *yuangl@swip.ac.cn* >

IAEA-CN-316-3213

Materials: via Indico sever:



Self-Organized FRC Formation in Mirror Field Orthogonal to the Axis of Counter-Injected Plasmoids

Tsutomu Takahashi

Tsutomu Takahashi (Nihon University), Japan

Corresponding Author: Tsutomu Takahashi, *TsutomuTakahashi* < *takahashi.tsutomu@nihon-u.ac.jp* >

IAEA-CN-316-3214

Materials: via Indico sever:



DEVELOPMENT OF STEADY-STATE OPERATION SCENARIOS WITH FULL TUNGSTEN LIMITER/DIVERTOR IN ITER-RELEVANT CONFIGURATION ON EAST

Juan Huang

Juan Huang (CnIPPCAS), China

Corresponding Author: Juan Huang, *JuanHuang* < juan.huang@ipp.ac.cn >

IAEA-CN-316-3215

Materials: via Indico sever:



Design and Test of a Unified Modular Pulsed Power Supply for All Magnets of the Negative Triangularity Spherical Tokamak (NTST)

Hongran Zhou

Hongran Zhou (Startorus Fusion), China

Corresponding Author: Hongran Zhou, *HongranZhou* < zhouhongran@startorus.cn >

IAEA-CN-316-3217

Materials: via Indico sever:



TUNGSTEN DUST TRANSPORT IN THE STOR-M TOKAMAK

Chijin Xiao

Chijin Xiao (University of Saskatchewan), Canada

Corresponding Author: Chijin Xiao, *ChijinXiao* < *chijin.xiao@usask.ca* >

IAEA-CN-316-3218

Materials: via Indico sever:



High Intensity Neutron Source for Fusion Nuclear Technology Development

Qi YANG

Qi YANG (International Academy of Neutron Science), China

Corresponding Author: Qi YANG, *QiYANG* < *qi.yang@fds.org.cn* >

IAEA-CN-316-3219

Materials: via Indico sever:



Transport properties of trapped-electron-mode turbulence interacting with tearing modes in tokamak plasmas

Jiquan Li

Jiquan Li (Southwestern Institute of Physics), China

Corresponding Author: Jiquan Li, *JiquanLi* < *lijq@swip.ac.cn* >

IAEA-CN-316-3221

Materials: via Indico sever:



Design and Testing of Quench Protection System for ITER Magnet Cold Test Bench

Wei Tong

Wei Tong, China

Corresponding Author: Wei Tong, *WeiTong* < tongwei@hfut.edu.cn >

IAEA-CN-316-3224

Materials: via Indico sever:



Stellarator Plasma Start-up Model Based on Energy Confinement Time Scaling Laws, Experimental Verification and Numerical Simulation Results

chun yan Li

chun yan Li, China

Corresponding Author: chun yan Li, *chunyanLi* < 20221010110020@stu.usc.edu.cn >

IAEA-CN-316-3225



Materials: via Indico sever:

TURBULENCE AND TRANSPORT DEPENDENCE ON TEMPERATURE RATIO WITH $T_e/T_i \sim 1-1.5$ IN EAST H-MODE PLASMA

Pan Li

Pan Li (Institute of Plasma Physics, Chinese Academy of Science), China

Corresponding Author: Pan Li, *PanLi* < lipan@ipp.ac.cn >

IAEA-CN-316-3226

Materials: via Indico sever:



NOVEL EFFECTS OF EDGE-LOCALISED RMPS AND PLASMA DENSITY ON THE L-H TRANSITIONS AND TURBULENCE

Eun-jin Kim

Eun-jin Kim (Coventry University), Korea, Republic of

Corresponding Author: Eun-jin Kim, *Eun – jinKim* < *ejk92122@gmail.com* >

IAEA-CN-316-3227

Materials: via Indico sever:



SIMULATION OF HEAT EXCHANGER TUBE RUPTURE ACCIDENT FOR CN HCCB TBS

Bo HU

Bo HU (Southwestern Institute of Physics), China

Corresponding Author: Bo HU, *BoHU* < *hubo@swip.ac.cn* >

IAEA-CN-316-3231

Materials: via Indico sever:



The 4C code as a candidate tool for the qualified analysis of superconducting magnets in the licensing of nuclear fusion reactors

roberto zanino

roberto zanino (dipartimento energia, politecnico di torino), Italy

Corresponding Author: roberto zanino, *robertozanino* < *roberto.zanino@polito.it* >

IAEA-CN-316-3232

Materials: via Indico sever:



**DIVERTOR FLUX CONTROL BY RMP ELM SUPPRESSION
AND RADIATIVE DIVERTOR OPERATION IN EAST H-MODE
WITH TUNGSTEN PLASMA FACING COMPONENTS IN
SUPPORT OF ITER NEW RESEARCH PLAN**

Manni JIA

Manni JIA (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Manni JIA, *Manni.JIA* < jiamanni@ipp.ac.cn >

IAEA-CN-316-3233

Materials: via Indico sever:



Development and validation of magneto-hydrodynamic turbulence models for the thermal-hydraulic design of ARC-class fusion reactor liquid blankets

roberto zanino

roberto zanino (dipartimento energia, politecnico di torino), Italy

Corresponding Author: roberto zanino, *robertozanino* < *roberto.zanino@polito.it* >

IAEA-CN-316-3236

Materials: via Indico sever:



DESIGN AND CHALLENGE FOR ITER DIVERTOR LANGMUIR PROBE

Lin Nie

Lin Nie (Southwestern Institute of Physics), China

Corresponding Author: Lin Nie, *Lin.Nie* < *nielin@swip.ac.cn* >

IAEA-CN-316-3239

Materials: via Indico sever:



Next-Generation Coil Power Supply System for the Tokamak: Design, Implementation, and Operational Performance

LIANSHENG HUANG

LIANSHENG HUANG (Institute of Plasma Physics, CAS), China

Corresponding Author: LIANSHENG HUANG, *LIANSHENGHUANG* < *huangls@ipp.ac.cn* >

IAEA-CN-316-3240

Materials: via Indico sever:



Validated, global edge-SOL turbulence simulations in various ELM-free regimes

Wladimir Zholobenko

Wladimir Zholobenko (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Wladimir Zholobenko, *Wladimir Zholobenko* < *wladimir.zholobenko@ipp.mpg.de* >

IAEA-CN-316-3241

Materials: via Indico sever:



COMMISSIONING OF THE CHINESE LARGEST SUPERCONDUCTING HIGH-FLUX LINEAR PLASMA DEVICE SWORD

Haishan Zhou

Haishan Zhou (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Haishan Zhou, *HaishanZhou* < *haishanzhou@ipp.ac.cn* >

IAEA-CN-316-3248



Materials: via Indico sever:

Construction Progress of Chinese First Quasi-axisymmetric Stellarator (CFQS) and Preliminary Results in the CFQS-Test Device

Yuhong Xu

Yuhong Xu (Southwest Jiaotong University), China

Corresponding Author: Yuhong Xu, *YuhongXu* <*xyuhong@swjtu.edu.cn*>

IAEA-CN-316-3249

Materials: via Indico sever:



Kinetic modeling of interactions among drift-Alfven instability, continuous spectrum and energetic particle in fusion experiments

Jian Bao

Jian Bao (Institute of Physics, Chinese Academy of Sciences), China

Corresponding Author: Jian Bao, *JianBao* < *jbao@iphy.ac.cn* >

IAEA-CN-316-3252

Materials: via Indico sever:



Reinforcement Learning-Based Plasma Shape Control via Isoflux scheme on superconductor tokamak

Haoyu Wang

Haoyu Wang (Institute of plasma physics, Chinese Academy of Sciences), China

Corresponding Author: Haoyu Wang, *HaoyuWang* < *haoyu.wang@ipp.ac.cn* >

IAEA-CN-316-3254

Materials: via Indico sever:



A novel Multi-Timescale strategy for Fusion Systems Codes and its impact to parametric analyses of Fusion Power Plants

Tiago Pomella Lobo

Tiago Pomella Lobo (Karlsruhe Institute of Technology (KIT)), Germany

Corresponding Author: Tiago Pomella Lobo, *TiagoPomellaLobo* <*t.pomella-lobo@outlook.com*>

IAEA-CN-316-3256

Materials: via Indico sever:



[OV POSTER TWIN] Strategic plan to demonstrate heatwave-driven laser fusion with fast ignition scheme

Yasuhiko Sentoku

Yasuhiko Sentoku (Institute of Laser Engineering, Osaka University), Japan

Corresponding Author: Yasuhiko Sentoku, *YasuhikoSentoku* < *sentoku.yasuhiko.ile@osaka-u.ac.jp* >

IAEA-CN-316-3386

Materials: via Indico sever:



[OV POSTER TWIN] Progress and innovations in the TCV tokamak research programme

Christian Theiler

Christian Theiler (EPFL-SPC), Switzerland

Corresponding Author: Christian Theiler, *ChristianTheiler* < *christian.theiler@epfl.ch* >

IAEA-CN-316-3388

Materials: via Indico sever:



The role of ambient turbulence in facilitating thermal quench of disruptive plasmas in HL-2A tokamak

Yucai Li

Yucai Li (李宇才), China

Corresponding Author: Yucai Li, *YucaiLi* <liyucan@swjtu.edu.cn>

IAEA-CN-316-3259

Materials: via Indico sever:



European ITER Vacuum Vessel procurement: the delivery of the first two sectors and overview of the overall production

Boris Bellesia

Boris Bellesia (Fusion for Energy), Fusion for Energy

Corresponding Author: Boris Bellesia, *BorisBellesia* <boris.bellesia@f4e.europa.eu>

IAEA-CN-316-3260

Materials: via Indico sever:



SIMULATION OF EFFECT OF POLOIDAL INJECTION GEOMETRY ON LI-PELLET TRIGGERED ELM UNDER BOUT++ FRAMEWORK

Mao Li

Mao Li, China

Corresponding Author: Mao Li, *MaoLi* <*limao@dlut.edu.cn*>

IAEA-CN-316-3261

Materials: via Indico sever:



Theoretical Model for the Experimentally Observed GAMs Satellites

Ekaterina Sorokina

Ekaterina Sorokina (National Research Center "Kurchatov Institute"), Russia

Corresponding Author: Ekaterina Sorokina, *EkaterinaSorokina* < *sorokina_ea@nrcki.ru* >

IAEA-CN-316-3263

Materials: via Indico sever:



AVERAGE MAGNETIC DRIFT MODEL FOR ION TEMPERATURE GRADIENT DRIVEN INSTABILITY IN TOKAMAKS

Baobao Jia

Baobao Jia, China

Corresponding Author: Baobao Jia, *BaobaoJia* <*chenguangsha@foxmail.com*>

IAEA-CN-316-3264

Materials: via Indico sever:



Gyrokinetic simulations of pressure driven magnetohydrodynamic(MHD) instabilities in stellarator

Pengfei Liu

Pengfei Liu (Institute of Physics, Chinese Academy of Sciences), China

Corresponding Author: Pengfei Liu, *PengfeiLiu* < *figopr11988@gmail.com* >

IAEA-CN-316-3266

Materials: via Indico sever:



EFFECT OF IMPURITY DISTRIBUTION ON THE STABILITY OF NEOCLASSICAL TEARING MODE

xin yu

xin yu, China

Corresponding Author: xin yu, *xinyu* < *yuxin@swip.ac.cn* >

IAEA-CN-316-3267

Materials: via Indico sever:



Nonlinear Self-Consistent Dynamics of Geodesic Acoustic Modes and Zonal Flows in Toroidally Rotating Tokamak Plasmas

Victor Ilgisonis

Victor Ilgisonis (NRC Kurchatov Inst), Russia

Corresponding Author: Victor Ilgisonis, *VictorIlgisonis* < *victor_ilgisonis@yahoo.com* >

IAEA-CN-316-3268

Materials: via Indico sever:



Alpha particle generation and confinement in D-3He scenarios in JT-60SA

Rui Miguel Dias Alves Coelho

Rui Miguel Dias Alves Coelho (Instituto de Plasmas e Fusão Nuclear, Instituto Superior Técnico, Universidade de Lisboa, 1049-001 Lisboa, Portugal), Portugal

Corresponding Author: Rui Miguel Dias Alves Coelho, *RuiMiguelDiasAlvesCoelho* <*rcoelho@ipfn.tecnico.ulisboa.pt*>

IAEA-CN-316-3269

Materials: via Indico sever:



CHARACTERISTICS OF EDGE QUASI-COHERENT MODE IN THE EDA H-MODE ON HL-3

Anshu Liang

Anshu Liang, China

Corresponding Author: Anshu Liang, *AnshuLiang* < *anshuliang@gmail.com* >

IAEA-CN-316-3271

Materials: via Indico sever:



The development of millimeter-wave heating system towards CFEDR

Xiaojie Wang

Xiaojie Wang (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Xiaojie Wang, *XiaojieWang* < *xjiew@ipp.ac.cn* >

IAEA-CN-316-3273

Materials: via Indico sever:



Plasma Instability Events Detection and Disruption Prediction in EAST Tokamak via Heterogeneous-Feature Multi-Task Learning

Yunhu Jia

*Yunhu Jia (University of Science and Technology of China, Hefei 230026, Anhui, China; Institute of Plasma Physics, Hefei Institutes of Physical Science, Chinese Academy of Sciences, Hefei, 230026, Anhui, China;),
China*

Corresponding Author: Yunhu Jia, *Yunhu.Jia* < *yunhu.jia@ipp.ac.cn* >

IAEA-CN-316-3276

Materials: via Indico sever:



Evaluating economic, environmental, and social impacts of adopting fusion energy in Saudi Arabia

Ibrahim Alrammah

Ibrahim Alrammah (Research, Development and Innovation Authority), Saudi Arabia

Corresponding Author: Ibrahim Alrammah, *IbrahimAlrammah* < *iarammah@gmail.com* >

IAEA-CN-316-3277

Materials: via Indico sever:



Remote Handling Strategy of Volumetric Neutron Source Blanket

CHRISTIAN Bachmann

CHRISTIAN Bachmann (EUROfusion), Italy

Corresponding Author: CHRISTIAN Bachmann, *CHRISTIAN Bachmann* <christian.bachmann@eurofusion.org>

IAEA-CN-316-3278



Materials: via Indico sever:

Force-electric coupling characteristics of CORC cables under bending load

Shijie Shi

Shijie Shi (Academy of Sciences Institute of Plasma Physics), China

Corresponding Author: Shijie Shi, *ShijieShi* < *shijie.shi@ipp.ac.cn* >

IAEA-CN-316-3279

Materials: via Indico sever:



ANALYSIS AND SIMULATION OF EFFECTIVE RUNAWAY ELECTRON MITIGATION USING A PASSIVE COIL IN J-TEXT TOKAMAK

Chang Liu

Chang Liu (Peking University), China

Corresponding Author: Chang Liu, *ChangLiu* < *goduck777@gmail.com* >

IAEA-CN-316-3281

Materials: via Indico sever:



Development of ITER Divertor Outer Vertical Target

Makoto Fukuda

Makoto Fukuda (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Makoto Fukuda, *MakotoFukuda* < *fukuda.makoto@qst.go.jp* >

IAEA-CN-316-3283

Materials: via Indico sever:



PERTURBATED MAGNETIC FIELD THRESHOLD OF EDGE COHERENT OSCILLATION DURING ELM MITIGATION BY N $= 1$ AND $N=2$ RMP

Tengfei Sun

Tengfei Sun (Southwestern Institute of Physics), China

Corresponding Author: Tengfei Sun, *TengfeiSun* < *suntf@swip.ac.cn* >

IAEA-CN-316-3286



Materials: via Indico sever:

THE RADIATIVE DIVERTOR AND IN/OUT ASYMMETRY IN HL-2M BY IMPURITY SEEDING WITH FULL DRIFTS

Yanjie Zhang

Yanjie Zhang (Dalian University of Technology), China

Corresponding Author: Yanjie Zhang, *YanjieZhang* < *zhangyanjiemac@gmail.com* >

IAEA-CN-316-3288

Materials: via Indico sever:



Demonstration of modelling and optimization in neutral beam heating and current drive with HL-3 parameters

Baolong Hao

Baolong Hao (SWIP), China

Corresponding Author: Baolong Hao,

IAEA-CN-316-3291

Materials: via Indico sever:



Simulation study of the effect of impurities on the nonlinear dynamic process of Edge-Localized-Modes

Taihao Huang

Taihao Huang (University of science and technology of China), China

Corresponding Author: Taihao Huang, *TaihaoHuang* < *huangth@mail.ustc.edu.cn* >

IAEA-CN-316-3292

Materials: via Indico sever:



Experimental and Numerical Research on High-Temperature Superconducting Demountable Joints for Toroidal Field Coils of Tokamaks

Zhang Chi, Qin Lang

Zhang Chi (Startorus Fusion), Qin Lang (Startorus Fusion), China

Corresponding Author: Zhang Chi, Qin Lang, *QinLang* < qinlang@startorus.cn >

IAEA-CN-316-3294



Materials: via Indico sever:

CLUSTER DYNAMICS MODELING OF DEFECT EVOLUTION IN NEUTRON-IRRADIATED TUNGSTEN FOR FUSION APPLICATIONS

Zhaofan Wang

Zhaofan Wang (University of Science and Technology of China), China

Corresponding Author: Zhaofan Wang, *ZhaofanWang* < wangzhaof@mail.ustc.edu.cn >

IAEA-CN-316-3295

Materials: via Indico sever:



DEUTERIUM GAS-DRIVEN PERMEATION AND RETENTION IN LA₂O₃, Y₂O₃, AND ZrO₂ DISPERSION-STRENGTHENED TUNGSTEN

Zeshi Gao

Zeshi Gao (University of Science and Technology of China), China

Corresponding Author: Zeshi Gao, *ZeshiGao* < zsgao@mail.ustc.edu.cn >

IAEA-CN-316-3296

Materials: via Indico sever:



Experimental research on the penetration behavior of compact toroid fueling on EAST

Yahao Wu

Yahao Wu, China

Corresponding Author: Yahao Wu, *YahaoWu* <*yahwu@163.com*>

IAEA-CN-316-3297

Materials: via Indico sever:



A Novel High-Temperature Superconducting Cable Design for Compact Tokamaks

Qin Lang, Wu Run

Qin Lang (Startorus Fusion), Wu Run (Startorus Fusion), China

Corresponding Author: Qin Lang, Wu Run, *QinLang* < *qinlang@startorus.cn* >

IAEA-CN-316-3299

Materials: via Indico sever:



THE RESEARCH OF THE STABILITY OF REVERSED SHEAR ALFVÉN EIGENMODES EXCITED BY ENERGETIC PARTICLES IN HL-2A

Wenyang Li

Wenyang Li (Nankai University), China

Corresponding Author: Wenyang Li, *WenyangLi* <lwysg@mail.nankai.edu.cn>

IAEA-CN-316-3304

Materials: via Indico sever:



IMPACT OF NEUTRAL PARTICLES ON BEAM-ION LOSSES IN EAST TOKAMAK

zixin Zhang

zixin Zhang (ASIPP), China

Corresponding Author: zixin Zhang, *zixinZhang* < *zixin.zhang@ipp.ac.cn* >

IAEA-CN-316-3307

Materials: via Indico sever:



Tungsten limiter Start-up experiments in different boronization states in support of ITER

J  rg Hobirk

J  rg Hobirk (IPP Garching), Germany

Corresponding Author: J  rg Hobirk, *JrgHobirk* <*joerg.hobirk@ipp.mpg.de*>

IAEA-CN-316-3308

Materials: via Indico sever:



Modeling of wall material evolution and the impact on edge particle recycling for long pulse discharges in EAST

Guoliang XU

Guoliang XU (Institute of Plasma Physics, Chinese Academy of Science), China

Corresponding Author: Guoliang XU, *GuoliangXU* < *guoliang.xu@ipp.ac.cn* >

IAEA-CN-316-3309

Materials: via Indico sever:



THE EFFECT OF W SURFACE FUZZ INDUCED BY HE PLASMA ON DEUTERIUM PERMEATION

Long Li

Long Li (University of Science and Technology of China), China

Corresponding Author: Long Li, *LongLi* < *longli97@mail.ustc.edu.cn* >

IAEA-CN-316-3310

Materials: via Indico sever:



EXPERIMENTAL STUDY ON THE MIGRATION PROCESS OF ADATOM IN THE GROWTH DYNAMIC OF FUZZ

Zhe Liu

Zhe Liu (University of Science and Technology of China), China

Corresponding Author: Zhe Liu, *ZheLiu* < *zhejiu@ustc.edu.cn* >

IAEA-CN-316-3312

Materials: via Indico sever:



DEVELOPMENT OF A THREE-DIMENSIONAL SIMULATION CODE FOR SCRAPE-OFF LAYER PLASMAS

Jiafeng He

Jiafeng He, China

Corresponding Author: Jiafeng He, *JiafengHe* < *hejiaf@mail.ustc.edu.cn* >

IAEA-CN-316-3313

Materials: via Indico sever:



Experimental and Simulation Study of Plasma Detachment in the Linear Plasma Device MPS-LD

Chaofeng Sang

Chaofeng Sang (Dalian University of Technology), China

Corresponding Author: Chaofeng Sang, *ChaofengSang* < *sang@dlut.edu.cn* >

IAEA-CN-316-3314

Materials: via Indico sever:



ACCESSING STABLE OPERATIONAL WINDOWS IN K-DEMO

Jaymyoung Lee

Jaymyoung Lee (Seoul National University), Korea, Republic of

Corresponding Author: Jaymyoung Lee, *JaymyoungLee* < *jmlmir@snu.ac.kr* >

IAEA-CN-316-3315

Materials: via Indico sever:



THE INFLUENCE OF E \tilde{A} B DRIFT COMBINED WITH DIVERTOR DOME ON PLASMA DETACHMENT IN CFETR BY USING SOLPS-ITER

Xuele Zhao

Xuele Zhao (Dalian University of Technology), China

Corresponding Author: Xuele Zhao, *XueleZhao* <zhaoxuele@mail.dlut.edu.cn >

IAEA-CN-316-3316

Materials: via Indico sever:



Experimental observation of zonal flow-like oscillation in Chinese first quasi-axisymmetric stellarator-test device

Xi Chen

Xi Chen (Institute of Fusion Science, School of Physical Science and Technology, Southwest Jiaotong University), China

Corresponding Author: Xi Chen, *XiChen* < *marguerite@my.swjtu.edu.cn* >

IAEA-CN-316-3317

Materials: via Indico sever:



CERMET ALLOYS FOR HYBRID FISSION-FUSION NUCLEAR REACTOR

Juana L Gervasoni

Juana L Gervasoni (Bariloche Atomic Center (CNEA)), Argentina

Corresponding Author: Juana L Gervasoni, *JuanaLGervasoni* <*juana.gervasoni@gmail.com*>

IAEA-CN-316-3318

Materials: via Indico sever:



Experimental observation of streamer-like structure enhancing turbulent transport in scrape-off layer of HL-2A tokamak

Jian Chen

Jian Chen (Institute of Fusion Science, School of Physical Science and Technology, Southwest Jiaotong University), China

Corresponding Author: Jian Chen, *JianChen* < *chenjian@my.swjtu.edu.cn* >

IAEA-CN-316-3319

Materials: via Indico sever:



[OV POSTER TWIN] Recent advances at the Globus-M2 tokamak

Nikolai Bakharev

Nikolai Bakharev (Ioffe Institute), Russia

Corresponding Author: Nikolai Bakharev, *NikolaiBakharev* <*bakharev@mail.ioffe.ru*>

IAEA-CN-316-3389

Materials: via Indico sever:



TEMPO: a comprehensive and versatile equilibrium modelling toolbox for tokamak operations

Zhengbo Cheng

Zhengbo Cheng (Shaanxi Startorus Fusion Technology Company Limited), China

Corresponding Author: Zhengbo Cheng, *ZhengboCheng* <1102981539@qq.com>

IAEA-CN-316-3322

Materials: via Indico sever:



[OV POSTER TWIN] TOWARDS DIGITAL TWINS OF FUSION SYSTEMS

Frank Jenko

Frank Jenko, Germany

Corresponding Author: Frank Jenko, *FrankJenko* < *frank.jenko@ipp.mpg.de* >

IAEA-CN-316-3390

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF ACHIEVEMENTS AND OUTLOOK OF THE IFMIF/EVEDA PROJECT

Kazuo HASEGAWA

Kazuo HASEGAWA (QST), Japan

Corresponding Author: Kazuo HASEGAWA, *KazuoHASEGAWA* < *hasegawa.kazuo@qst.go.jp* >

IAEA-CN-316-3391

Materials: via Indico sever:



[OV POSTER TWIN] Overview of ASDEX Upgrade results

Thomas Pütterich

Thomas Pütterich (Max-Planck-Institut für Plasmaphysik), Germany

Corresponding Author: Thomas Pütterich, *ThomasPtterich* < thomas.puetterich@ipp.mpg.de >

IAEA-CN-316-3393

Materials: via Indico sever:



INNOVATIVE AND EFFICIENT PLASMA MAGNETIC CONFINEMENT METHOD BASED ON AN OVERLOOKED HISTORICAL DISCOVERY

Martin STOREY

Martin STOREY (Meranti Research Laboratories), Australia

Corresponding Author: Martin STOREY, *MartinSTOREY* < *mstorey@meranti – research.net* >

IAEA-CN-316-3329

Materials: via Indico sever:



A novel method to optimize omnigenity like quasisymmetry for stellarators

Caoxiang Zhu

Caoxiang Zhu (University of Science and Technology of China), China

Corresponding Author: Caoxiang Zhu, *CaoxiangZhu* <caoxiangzhu@gmail.com >

IAEA-CN-316-3330

Materials: via Indico sever:



Insights from fast-ion physics studies on JET in support of JT-60SA and ITER rebaseline

Yevgen Kazakov

Yevgen Kazakov (Laboratory for Plasma Physics, LPP-ERM/KMS), Belgium

Corresponding Author: Yevgen Kazakov, *YevgenKazakov* < *yevgen.kazakov@rma.ac.be* >

IAEA-CN-316-3333

Materials: via Indico sever:



NTST, A NEGATIVE TRIANGULARITY SPHERICAL TOKAMAK

Yi Tan

Yi Tan (Tsinghua University), China

Corresponding Author: Yi Tan, *YiTan* < tanyi@sunist.org >

IAEA-CN-316-3334

Materials: via Indico sever:



TURBULENCE-TRANSPORT COUPLING SIMULATION STUDY OF THE ELM DYNAMICS FROM HIGH RECYCLING ATTACHED REGIME TO IMPURITY SEEDED DETACHMENT REGIME WITHIN EDGE PLASMA COUPLING SIMULATION (EPCS) FRAMEWORK

TianYuan Liu

*TianYuan Liu (School of Nuclear Science and Technology, University of Science and Technology of China),
China*

Corresponding Author: TianYuan Liu, *TianYuanLiu* < tianyuanliu@mail.ustc.edu.cn >

IAEA-CN-316-3336

Materials: via Indico sever:



[OV POSTER TWIN] Overview of the DONES Experimental Programme

Angel Ibarra

Angel Ibarra (CIEMAT), Spain

Corresponding Author: Angel Ibarra, *AngelIbarra* < *angel.ibarra@ciemat.es* >

IAEA-CN-316-3395

Materials: via Indico sever:



SIMULATION OF FUEL INVENTORY IN DAMAGED TUNGSTEN UNDER SIMULTANEOUS HYDROGEN AND DEUTERIUM: SYNERGISTICAL EFFECT OF DEFECT ANNEALING AND ISOTOPE EXCHANGE

Zhenhou Wang

Zhenhou Wang, China

Corresponding Author: Zhenhou Wang, *ZhenhouWang* < *zhenhou@dlut.edu.cn* >

IAEA-CN-316-3338

Materials: via Indico sever:



ENERGETIC PARTICLE DISTRIBUTIONS FOR QUANTITATIVE CALCULATIONS OF BURNING PLASMA STABILITY

Simon Pinches

Simon Pinches (ITER Organization), ITER Organization

Corresponding Author: Simon Pinches, *SimonPinches* < *simon.pinches@iter.org* >

IAEA-CN-316-3339

Materials: via Indico sever:



Tokamak Energy's high temperature superconducting magnet spherical tokamak fusion pilot plant concept

Nicolas Lopez

Nicolas Lopez (Tokamak Energy Ltd), United Kingdom

Corresponding Author: Nicolas Lopez, *NicolasLopez* < *nicolas.lopez@tokamakenergy.com* >

IAEA-CN-316-3341

Materials: via Indico sever:



THE ESTABLISHMENT OF THE SYNTHETIC DIAGNOSTIC MODELING SPECIFICALLY FOR THE IMAGING NEUTRAL PARTICLE ANALYZER ON THE EAST

Jiayi Zhang

Jiayi Zhang, China

Corresponding Author: Jiayi Zhang, *JiayiZhang* < *zhangjiayi1009@stu.pku.edu.cn* >

IAEA-CN-316-3342



Materials: via Indico sever:

PLASMA CURRENT AND POSITION CONTROL IN KTM TOKAMAK

Aleksei Li, Baurzhan Chektybayev

Aleksei Li (Tomsk Polytechnic University, Tomsk, Russian Federation), Baurzhan Chektybayev, Russia

Corresponding Author: Aleksei Li, Baurzhan Chektybayev, *AlekseiLi* <alee@tpu.ru >

IAEA-CN-316-3344

Materials: via Indico sever:



Non-inductive high-performance discharges on TCV on the path to steady state

Stefano Coda

Stefano Coda (CRPP-EPFL), Switzerland

Corresponding Author: Stefano Coda, *StefanoCoda* < *stefano.coda@epfl.ch* >

IAEA-CN-316-3345

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF WEST CONTRIBUTIONS TO THE NEW ITER BASELINE AND FUSION POWER PLANTS

Jerome Bucalossi

Jerome Bucalossi (CEA), France

Corresponding Author: Jerome Bucalossi, *JeromeBucalossi* < *jerome.bucalossi@cea.fr* >

IAEA-CN-316-3397

Materials: via Indico sever:



CHARACTERIZATION OF TURBULENT TRANSPORT OF PARTICLES, OPTIMIZATION OF PLASMA HEATING AND OPERATION CURRENT CONTROL IN THE COILS OF THE SCR-1 STELLARATOR

Ivan Vargas-Blanco

Ivan Vargas-Blanco (Costa Rica Institute of Technology), Costa Rica

Corresponding Author: Ivan Vargas-Blanco, *IvanVargas – Blanco* < ivargas@tec.ac.cr >

IAEA-CN-316-3347

Materials: via Indico sever:



**FUSION STUDIES WITH SMALL AND TABLETOP PLASMA
FOCUS DEVICES: INVESTIGATIONS ON NEW
OPERATIONAL REGIMES, NON-EQUILIBRIUM
THERMODYNAMICS, EXTREME MATERIAL CONDITIONS,
AND BIOLOGICAL EFFECTS**

Leopoldo Soto

Leopoldo Soto (Chilean Nuclear Energy Commission), Chile

Corresponding Author: Leopoldo Soto, *LeopoldoSoto* < *leopoldo.soto@cchen.cl* >

IAEA-CN-316-3348

Materials: via Indico sever:



Challenges and Achievements in IFMIF-DONES Neutronics Activities

Yuefeng Qiu

Yuefeng Qiu (Karlsruhe Institute of Technology), Germany

Corresponding Author: Yuefeng Qiu, *YuefengQiu* <*yuefeng.qiu@kit.edu*>

IAEA-CN-316-3350

Materials: via Indico sever:



PLASMA PREDICTION AND SIMULATION IN SUPPORT OF REACTOR DESIGN AND OPERATION AT TOKAMAK ENERGY

Michele Romanelli

Michele Romanelli (Tokamak Energy), United Kingdom

Corresponding Author: Michele Romanelli, *MicheleRomanelli* < *michele.romanelli@tokamakenergy.co.uk* >

IAEA-CN-316-3351

Materials: via Indico sever:



The physics of ELM-free regimes in EUROfusion tokamaks

Michael Dunne

Michael Dunne (IPP-Garching), Germany

Corresponding Author: Michael Dunne, *MichaelDunne* < *mike.dunne@ipp.mpg.de* >

IAEA-CN-316-3354

Materials: via Indico sever:



BOUT++ SIMULATION STUDY OF THE EFFECT OF RESONANT MAGNETIC PERTURBATION ON THE TURBULENCE TRANSPORT

Shifeng MAO

Shifeng MAO (University of Science and Technology of China), China

Corresponding Author: Shifeng MAO, *ShifengMAO* < *sfmao@ustc.edu.cn* >

IAEA-CN-316-3356

Materials: via Indico sever:



Fusion-relevant tritium interactions with SS316L stainless steel

Anete Teimane

Anete Teimane, Latvia

Corresponding Author: Anete Teimane, *AneteTeimane* < *anete_tine.teimane@lu.lv* >

IAEA-CN-316-3357

Materials: via Indico sever:



ANALYSIS OF FAST ION DISTRIBUTIONS USING NEUTRON EMISSION SPECTROSCOPY IN NBI-ICRF SYNERGISTIC HEATING PLASMA ON EAST

Andong Xu

Andong Xu (School of Physics, Peking University, Beijing, China), China

Corresponding Author: Andong Xu, *AndongXu* <*xuandong@pku.edu.cn*>

IAEA-CN-316-3358

Materials: via Indico sever:



TARGETS DEVELOPED IN THE 21ST CENTURY AT THE P.N. LEBEDEV PHYSICAL INSTITUTE OF RAS TO STUDY THE EXTREME MATTER PHYSICS USING HIGH-POWER LASER FACILITIES

Nataliya Borisenko

Nataliya Borisenko (P.N. Lebedev Physical Institute of the Russian Academy of Sciences), Russia

Corresponding Author: Nataliya Borisenko, *NataliyaBorisenko* < *borisenkong@lebedev.ru* >

IAEA-CN-316-3359

Materials: via Indico sever:



Establishment and Progress of Korean Fusion Reactor Design Activities: A Coordinated National Approach

Jae-Min Kwon

Jae-Min Kwon (Korea Institute of Fusion Energy, Daejeon), Korea, Republic of

Corresponding Author: Jae-Min Kwon, *Jae – MinKwon* <jmkwon74@kfe.re.kr >

IAEA-CN-316-3360

Materials: via Indico sever:



PERFORMANCE EVALUATION OF TUNGSTEN FIBER-REINFORCED TUNGSTEN COMPOSITES DEVELOPED AT SWIP FOR APPLICATION IN NUCLEAR FUSION REACTORS

Juan Du

Juan Du (Southwestern Institute of Physics (SWIP), China

Corresponding Author: Juan Du, *JuanDu* < *dujuan@swip.ac.cn* >

IAEA-CN-316-3364

Materials: via Indico sever:



HIGH-HEAT-FLUX PERFORMANCE OF MONOBLOCK TARGET PREPARED WITH ADVANCED W-K PLATE

Fan Feng

Fan Feng, China

Corresponding Author: Fan Feng, *FanFeng* < *fengf@swip.ac.cn* >

IAEA-CN-316-3365

Materials: via Indico sever:



THE INTERACTION BETWEEN THE EDGE DISLOCATION AND THE DISLOCATION LOOP-BUBBLE COMPLEX UNDER SHEAR STRESS IN BCC IRON

Y. X Wei

Y. X Wei (SWIP), China

Corresponding Author: Y. X Wei, "Y.XWei" <weiyaxia@swip.ac.cn >

IAEA-CN-316-3366

Materials: via Indico sever:



ITER Core Machine Assembly Progress

Jens Reich

Jens Reich (ITER Organization), ITER Organization

Corresponding Author: Jens Reich, *JensReich* <*jens.reich@iter.org*>

IAEA-CN-316-3368

Materials: via Indico sever:



PHYSICAL MODEL FOR TESTING STRUCTURAL MATERIALS OF FUSION REACTORS UNDER PLASMA AND THERMAL IMPACT

Igor Andreevich Sokolov

Igor Andreevich Sokolov (Institute of Atomic Energy NNC RK), Kazakhstan

Corresponding Author: Igor Andreevich Sokolov, *Igor.Andreevich.Sokolov* < *sokolov@nnc.kz* >

IAEA-CN-316-3370



Materials: via Indico sever:

OVERALL PERFORMANCE OF THE HOUR-LEVEL ALTERNATING HYBRID INTEGRATOR

Yufan lv

*Yufan lv (Institute of Plasma Physics, Chinese Academy of SciencesThe School of Instrument Science and
Opto-Electronics Engineering, Hefei University of Technology), China*

Corresponding Author: Yufan lv, *Yufanlv* <2023170036@mail.hfut.edu.cn >

IAEA-CN-316-3371

Materials: via Indico sever:



TOWARD THE DESIGN VALIDATION OF WATER-COOLED CERAMIC BREEDER TEST BLANKET MODULE IN PHYSICAL MOCK-UP TESTING

Wenhai Guan

Wenhai Guan (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Wenhai Guan, *WenhaiGuan* < *guan.wenhai@qst.go.jp* >

IAEA-CN-316-3372

Materials: via Indico sever:



HEATING D IONS TO OPTIMAL D-T FUSION ENERGIES WITH ICRF WAVES

Ernesto Lerche

*Ernesto Lerche (Laboratory for Plasma Physics, ERM/KMS and UKAEA-CCFE Culham Science Centre),
Belgium*

Corresponding Author: Ernesto Lerche, *ErnestoLerche* < *ernesto.lerche@ukaea.uk* >

IAEA-CN-316-3374

Materials: via Indico sever:



Progress And Developments In Advanced Diagnostics For Thailand Tokamak-1

Siriyaporn Sangaroon

Siriyaporn Sangaroon (Mahasarakham University), Thailand

Corresponding Author: Siriyaporn Sangaroon, *Siriyaporn.Sangaroon* < *siriyaporn.s@msu.ac.th* >

IAEA-CN-316-3375

Materials: via Indico sever:



CFETR NEUTRONICS BENCHMARK CROSSCHECKING USING JMCT

XUEMING SHI

XUEMING SHI, China

Corresponding Author: XUEMING SHI, *XUEMINGSHI* <*sxmshi@iapcm.ac.cn*>

IAEA-CN-316-3376

Materials: via Indico sever:



Safety Regulation of Fusion Facilities in the Russian Federation

Mikhail Polyanskii

*Mikhail Polyanskii (Scientific and Engineering Centre for Nuclear and Radiation Safety (SEC NRS)),
Russia*

Corresponding Author: Mikhail Polyanskii, *MikhailPolyanskii* <*polyanskiy@secnrs.ru*>

IAEA-CN-316-3378



Materials: via Indico sever:

RECENT ADVANCES OF WATER DETRITIATION TECHONOLOGIES

Jinguang Cai

Jinguang Cai (Institute of Materials, China Academy Of Engineering Physics), China

Corresponding Author: Jinguang Cai, *JinguangCai* < *caijinguang@foxmail.com* >

IAEA-CN-316-3379

Materials: via Indico sever:



[OV POSTER TWIN] Overview of Wendelstein 7-X high-performance operation

Olaf Grulke

Olaf Grulke (MPI for Plasma Physics), Germany

Corresponding Author: Olaf Grulke, *OlafGrulke* < *grulke@ipp.mpg.de* >

IAEA-CN-316-3399

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF ST40 RESULTS AND FUTURE: EXPANDING THE PHYSICS BASIS OF HIGH-FIELD SPHERICAL TOKAMAKS

Otto Asunta

Otto Asunta (Tokamak Energy Ltd.), United Kingdom

Corresponding Author: Otto Asunta, *OttoAsunta* < otto.asunta@tokamakenergy.co.uk >

IAEA-CN-316-3401

Materials: via Indico sever:



[OV POSTER TWIN] HL-3 RESEARCH TOWARDS HIGH-PERFORMANCE PLASMA AND POWER EXHAUST SOLUTION

Wulyu Zhong

Wulyu Zhong (Southwestern Institute of Physics), China

Corresponding Author: Wulyu Zhong, *WulyuZhong* < *zhongwl@swip.ac.cn* >

IAEA-CN-316-3403

Materials: via Indico sever:



AN OVERVIEW OF THE FIRST EXPERIMENTAL RESULTS WITH DIVERTOR CONFIGURATION DISCHARGES IN THE KTM TOKAMAK

Baurzhan Chektybayev

*Baurzhan Chektybayev (Institute of Atomic Energy of National Nuclear Center of Republic Kazakhstan),
Kazakhstan*

Corresponding Author: Baurzhan Chektybayev, *BaurzhanChektybayev* < *chektybaev@nnc.kz* >

IAEA-CN-316-2665

Materials: via Indico sever:



JOREK contributions to the predictive understanding of transient phenomena in future tokamaks and stellarators

Matthias Hoelzl

Matthias Hoelzl (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Matthias Hoelzl, *MatthiasHoelzl* <*mhoelzl@ipp.mpg.de*>

IAEA-CN-316-2679

Materials: via Indico sever:



The Divertor Tokamak Test project: progress towards the initial operation

Gianmario Polli

Gianmario Polli (DDT Project), Italy

Corresponding Author: Gianmario Polli, *GianmarioPolli* < *gianmario.polli@dtm-project.it* >

IAEA-CN-316-2790

Materials: via Indico sever:



STEP Exhaust System " Architecture and Technology Development overview

Songke Wang

Songke Wang (UK Atomic Energy Authority), United Kingdom

Corresponding Author: Songke Wang, *SongkeWang* < *songke.wang@ukaea.uk* >

IAEA-CN-316-2813

Materials: via Indico sever:



Transport in high-performance plasmas of the TJ-II stellarator: From first-principles simulations to experimental validation

Jose Manuel Garcia-Regana

Jose Manuel Garcia-Regana (CIEMAT), Spain

Corresponding Author: Jose Manuel Garcia-Regana, *JoseManuelGarcia-Regana* < *jose.regana@ciemat.es* >

IAEA-CN-316-2902

Materials: via Indico sever:



Overview of EXL-50U Experiments: Addressing Key Physics Issues for Future Spherical Torus Reactors

Yuejiang Shi

Yuejiang Shi (ENN Science and Technology Development Co., Ltd, Langfang, China), China

Corresponding Author: Yuejiang Shi, *YuejiangShi* < *yjshi@ipp.ac.cn* >

IAEA-CN-316-2999

Materials: via Indico sever:



Early Neutron Source IFMIF-DONES: Status and validation activities phase

David Jimenez Rey

David Jimenez Rey (CIEMAT), Spain

Corresponding Author: David Jimenez Rey, *DavidJimenezRey* <*d.jimenez@ciemat.es*>

IAEA-CN-316-3062

Materials: via Indico sever:



Progress of Research on the KTX Reversed Field Pinch

Ge ZHUANG

Ge ZHUANG (University of Science and Technology of China), China

Corresponding Author: Ge ZHUANG, *GeZHUANG* <gezhuang@ustc.edu.cn >

IAEA-CN-316-3101

Materials: via Indico sever:



Overview of R&D activities within IFERC in support of fusion development in the context of the Broader Approach Agreement Phase II

Masatoshi Yagi

Masatoshi Yagi (National Institutes for Quantum and Radiological Science and Technology, Rokkasho Fusion Institute), Japan

Corresponding Author: Masatoshi Yagi, *MasatoshiYagi* < *yagi.masatoshi@qst.go.jp* >

IAEA-CN-316-3102

Materials: via Indico sever:



Progress of Proton-Boron Research for Fusion Energy in China

Bing Liu

Bing Liu (ENN Science and Technology Development Co., Ltd.), China

Corresponding Author: Bing Liu, *BingLiu* <liubingw@enn.cn >

IAEA-CN-316-3111

Materials: via Indico sever:



T-15MD: MISSION AND RECENT EXPERIMENTAL RESULTS

Natalia Kirneva

Natalia Kirneva (NRC "Kurchatov Institute"), Russia

Corresponding Author: Natalia Kirneva, *NataliaKirneva* < *kirneva_na@nrcki.ru* >

IAEA-CN-316-3142

Materials: via Indico sever:



Structural Design of the Negative Triangularity Spherical Tokamak (NTST)

Xuesong Ma

Xuesong Ma (Startorus Fusion, China), China

Corresponding Author: Xuesong Ma, *XuesongMa* < *snowpine_ma@126.com* >

IAEA-CN-316-3200

Materials: via Indico sever:



ADVANCES IN PHYSICS AND APPLICATIONS OF 3D MAGNETIC PERTURBATIONS ON THE J-TEXT TOKAMAK

Nengchao Wang

Nengchao Wang (Huazhong University of Science and Technology, Wuhan, China), China

Corresponding Author: Nengchao Wang, *NengchaoWang* < wangnc@hust.edu.cn >

IAEA-CN-316-3321

Materials: via Indico sever:



THE DIVERTOR TOKAMAK TEST FACILITY RESEARCH PLAN

Piero Martin

Piero Martin (Consorzio RFX), Italy

Corresponding Author: Piero Martin, *PieroMartin* < *martin@igi.cnr.it* >

IAEA-CN-316-3323

Materials: via Indico sever:



RECENT PROGRESS ON THE SUNIST-2 SPHERICAL TOKAMAK

Yi Tan

Yi Tan (Tsinghua University), China

Corresponding Author: Yi Tan, *YiTan* <*tanyi@sunist.org*>

IAEA-CN-316-3327

Materials: via Indico sever:



CONTROLLED NUCLEAR FUSION FOR THE ENERGY TRANSITION, HEALTH, AND INDUSTRY

GERVASONI Gervasoni

GERVASONI Gervasoni (CNEA), Argentina

Corresponding Author: GERVASONI Gervasoni, *GERVASONI Gervasoni* < juana.gervasoni@gmail.com >

IAEA-CN-316-3346

Materials: via Indico sever:



[OV POSTER TWIN] FIRST JT-60SA PLASMA OPERATION AND PLANS IN VIEW OF ITER AND DEMO

Jeronimo Garcia

Jeronimo Garcia (CEA IRFM), France

Corresponding Author: Jeronimo Garcia, *JeronimoGarcia* <jeronimo.garcia@cea.fr>

IAEA-CN-316-3383

Materials: via Indico sever:



NON-EVAPORABLE GETTER APPLICATION IN FUSION REACTORS

Jie Wang

Jie Wang (Xi'an Jiaotong University), China

Corresponding Author: Jie Wang, *JieWang* < wangjie1@xjtu.edu.cn >

IAEA-CN-316-3404

Materials: via Indico sever:



**[REGULAR POSTER TWIN] CHANGE OF WALL MATERIAL
FROM BERYLLIUM TO TUNGSTEN IN THE NEW ITER
BASELINE: PHYSICS BASIS, IMPLICATIONS FOR RESEARCH
PLAN AND WALL DESIGNS FOR ITS OPERATIONAL PHASES**

Alberto Loarte

Alberto Loarte (ITER Organization), ITER Organization

Corresponding Author: Alberto Loarte, *AlbertoLoarte* < *alberto.loarte@iter.org* >

IAEA-CN-316-3405

Materials: via Indico sever:



[REGULAR POSTER TWIN] RECOVERY OF ITER SECTOR MODULES FROM CRITICAL ISSUES

Chang Hyun Noh

Chang Hyun Noh (ITER organization), ITER Organization

Corresponding Author: Chang Hyun Noh, *ChangHyunNoh* < *changhyun.noh@iter.org* >

IAEA-CN-316-3406

Materials: via Indico sever:



[REGULAR POSTER TWIN] ACHIEVEMENT AT THE ITER NEUTRAL BEAM TEST FACILITY AND PROSPECTS FOR THE R&D ACTIVITIES WITHIN THE ITER RESEARCH PLAN

Diego Marcuzzi

Diego Marcuzzi (Consorzio RFX), Italy

Corresponding Author: Diego Marcuzzi, *DiegoMarcuzzi* < *diego.marcuzzi@igi.cnr.it* >

IAEA-CN-316-3407

Materials: via Indico sever:



[REGULAR POSTER TWIN] THE 2024 NEW BASELINE ITER RESEARCH PLAN

Siwoo Yoon

Siwoo Yoon (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Siwoo Yoon, *SiwooYoon* < *swyoon@kfe.re.kr* >

IAEA-CN-316-3408

Materials: via Indico sever:



[REGULAR POSTER TWIN] ITER Core Machine Assembly Progress

Jens Reich

Jens Reich (ITER Organization), ITER Organization

Corresponding Author: Jens Reich, *JensReich* <jens.reich@iter.org>

IAEA-CN-316-3409

Materials: via Indico sever:



[REGULAR POSTER TWIN] Hierarchy of turbulent transport models with the SOLEDGE3X code

Hugo Bufferand

Hugo Bufferand (CEA), France

Corresponding Author: Hugo Bufferand, *HugoBufferand* < *hugo.bufferand@cea.fr* >

IAEA-CN-316-3411

Materials: via Indico sever:



[REGULAR POSTER TWIN] GYROKINETIC SIMULATIONS OF A LOW RECYCLING SCRAPE-OFF LAYER WITHOUT A LITHIUM TARGET

Aaro Järvinen

Aaro Järvinen (VTT), United States

Corresponding Author: Aaro Järvinen, *AaroJrvinen* <*aaro.jarvinen@vtt.fi*>

IAEA-CN-316-3412

Materials: via Indico sever:



[REGULAR POSTER TWIN] The physics basis for implementing Alternative Divertor Configurations on reactors

Kevin Verhaegh

Kevin Verhaegh (CCFE), Netherlands

Corresponding Author: Kevin Verhaegh, *KevinVerhaegh* < *kevin.verhaegh@ukaea.uk* >

IAEA-CN-316-3413

Materials: via Indico sever:



[REGULAR POSTER TWIN] Validated, global edge-SOL turbulence simulations in various ELM-free regimes

Wladimir Zholobenko

Wladimir Zholobenko (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Wladimir Zholobenko, *Wladimir Zholobenko* < *wladimir.zholobenko@ipp.mpg.de* >

IAEA-CN-316-3414

Materials: via Indico sever:



[REGULAR POSTER TWIN] Integrated Modelling activities in support of the ITER re-baseline

Mireille SCHNEIDER

Mireille SCHNEIDER (ITER Organization), France

Corresponding Author: Mireille SCHNEIDER, *MireilleSCHNEIDER* < *mireille.schneider@iter.org* >

IAEA-CN-316-3415

Materials: via Indico sever:



[REGULAR POSTER TWIN] High performance ELM-free semi-detached scenario sustained at high-current in JET DTE3

Carine Giroud

Carine Giroud (UKAEA), United Kingdom

Corresponding Author: Carine Giroud, *CarineGiroud* < *carine.giroud@ukaea.uk* >

IAEA-CN-316-3416

Materials: via Indico sever:



[REGULAR POSTER TWIN] The physics of ELM-free regimes in EUROfusion tokamaks

Michael Dunne

Michael Dunne (IPP-Garching), Germany

Corresponding Author: Michael Dunne, *MichaelDunne* < *mike.dunne@ipp.mpg.de* >

IAEA-CN-316-3419

Materials: via Indico sever:



[REGULAR POSTER TWIN] WEST LONG-PULSE ACHIEVEMENTS IN SUPPORT OF NEXT-STEP FUSION DEVICES

Remi Dumont

Remi Dumont (CEA, IRFM), France

Corresponding Author: Remi Dumont, *RemiDumont* < *remi.dumont@cea.fr* >

IAEA-CN-316-3420

Materials: via Indico sever:



[REGULAR POSTER TWIN] DEVELOPMENT OF HIGH-PERFORMANCE LONG-PULSE DISCHARGE IN KSTAR

HYUNSEOK KIM

HYUNSEOK KIM (Korea Institute of Fusion Energy (KFE)), Korea, Republic of

Corresponding Author: HYUNSEOK KIM, *HYUNSEOKKIM* < *hskim0618@nfri.re.kr* >

IAEA-CN-316-3421

Materials: via Indico sever:



[REGULAR POSTER TWIN] Attaining Tokamak level performance through plasma density profile shaping at Wendelstein 7-X

Sebastian Bannmann

Sebastian Bannmann (MPI for Plasma Physics), Germany

Corresponding Author: Sebastian Bannmann, *SebastianBannmann* < *sebastian.bannmann@ipp.mpg.de* >

IAEA-CN-316-3422

Materials: via Indico sever:



**[REGULAR POSTER TWIN] DEVELOPMENT OF
STEADY-STATE OPERATION SCENARIOS WITH FULL
TUNGSTEN LIMITER/DIVERTOR IN ITER-RELEVANT
CONFIGURATION ON EAST**

Juan Huang

Juan Huang (CnIPPCAS), China

Corresponding Author: Juan Huang, *JuanHuang* < *juan.huang@ipp.ac.cn* >

IAEA-CN-316-3424

Materials: via Indico sever:



[REGULAR POSTER TWIN] Prediction of the implosion dynamics via AI enhanced simulations for the Double-Cone Ignition Scheme

Fuyuan Wu

Fuyuan Wu (Shanghai Jiao Tong University), China

Corresponding Author: Fuyuan Wu, *FuyuanWu* < *fuyuan.wu@sjtu.edu.cn* >

IAEA-CN-316-3425

Materials: via Indico sever:



[REGULAR POSTER TWIN] DEVELOPMENT OF INNOVATIVE REPEATABLE POWER LASER FOR LASER FUSION

Jumpei Ogino

Jumpei Ogino (Osaka university), Japan

Corresponding Author: Jumpei Ogino, *JumpeiOgino* <*ogino.jumpei.ile@osaka-u.ac.jp*>

IAEA-CN-316-3426

Materials: via Indico sever:



[REGULAR POSTER TWIN] HIGH GAIN FUSION BURNING IN INERTIAL CONFINEMENT FUSION PLASMA

Yasunobu Arikawa

Yasunobu Arikawa (Institute of Laser Engineering, Osaka University), Japan

Corresponding Author: Yasunobu Arikawa, *YasunobuArikawa* < *arikawa.yasunobu.ile@osaka-u.ac.jp* >

IAEA-CN-316-3427

Materials: via Indico sever:



[REGULAR POSTER TWIN] Foams as a Pathway to Energy from Inertial Fusion (FoPIFE): overview of recent results

sebastien Le Pape

sebastien Le Pape (Ecole Polytechnique), France

Corresponding Author: sebastien Le Pape, *sebastienLePape* < *sebastien.le-pape@polytechnique.edu* >

IAEA-CN-316-3428

Materials: via Indico sever:



[REGULAR POSTER TWIN] TARGETS DEVELOPED IN THE 21ST CENTURY AT THE P.N. LEBEDEV PHYSICAL INSTITUTE OF RAS TO STUDY THE EXTREME MATTER PHYSICS USING HIGH-POWER LASER FACILITIES

Nataliya Borisenko

Nataliya Borisenko (P.N. Lebedev Physical Institute of the Russian Academy of Sciences), Russia

Corresponding Author: Nataliya Borisenko, *Nataliya.Borisenko* <borisenkong@lebedev.ru >

IAEA-CN-316-3429

Materials: via Indico sever:



[REGULAR POSTER TWIN] Thermal quench dynamics and heat flux distribution during massive-impurity-injection triggered disruption in EAST

Long Zeng

Long Zeng (Tsinghua University), China

Corresponding Author: Long Zeng, *LongZeng* < zenglong@tsinghua.edu.cn >

IAEA-CN-316-3431

Materials: via Indico sever:



[REGULAR POSTER TWIN] ANALYSIS AND SIMULATION OF EFFECTIVE RUNAWAY ELECTRON MITIGATION USING A PASSIVE COIL IN J-TEXT TOKAMAK

Chang Liu

Chang Liu (Peking University), China

Corresponding Author: Chang Liu, *ChangLiu* <*goduck777@gmail.com*>

IAEA-CN-316-3434

Materials: via Indico sever:



[REGULAR POSTER TWIN] FIRST EDGE-LOCALIZED MODE SUPPRESSION WITH LOWER HYBRID WAVES ON THE EAST TOKAMAK

Shaocheng Liu

Shaocheng Liu (Donghua University), China

Corresponding Author: Shaocheng Liu, *ShaochengLiu* < *scliu@dhu.edu.cn* >

IAEA-CN-316-3437

Materials: via Indico sever:



[REGULAR POSTER TWIN] NEW UNDERSTANDING OF RESONANT LAYER RESPONSE VIA EXTENDED DRIFT MHD

Jong Kyu Park

Jong Kyu Park (Seoul National University), Korea, Republic of

Corresponding Author: Jong Kyu Park, *JongKyuPark* <*jkpark@snu.ac.kr*>

IAEA-CN-316-3438

Materials: via Indico sever:



[REGULAR TWIN POSTER] FIRST SOLPS-ITER WIDE GRID SIMULATIONS OF THE ITER BURNING PLASMA SCRAPE-OFF LAYER

Elizaveta Kaveeva

Elizaveta Kaveeva (Peter the Great St. Petersburg Polytechnic University), Russia

Corresponding Author: Elizaveta Kaveeva, *ElizavetaKaveeva* <*e.kaveeva@spbstu.ru*>

IAEA-CN-316-3441

Materials: via Indico sever:



[REGULAR TWIN POSTER] Modelling divertor solutions for power exhaust: in-depth experimental validation in TCV

Elena Tonello

*Elena Tonello (Ecole Polytechnique Fédérale de Lausanne (EPFL) - Swiss Plasma Center (SPC)),
Switzerland*

Corresponding Author: Elena Tonello, *ElenaTonello* < elena.tonello@epfl.ch >

IAEA-CN-316-3442

Materials: via Indico sever:



[REGULAR TWIN POSTER] Drift flows impact island divertor operation in Wendelstein 7-X

Carsten Killer

Carsten Killer (Max-Planck-Institute for Plasma Physics, Greifswald, Germany), Germany

Corresponding Author: Carsten Killer, *CarstenKiller* < *carsten.killer@ipp.mpg.de* >

IAEA-CN-316-3444

Materials: via Indico sever:



[REGULAR TWIN POSTER] ANALYSIS OF FUEL RETENTION AND RECOVERY IN JET WITH BE-W WALL

Dmitry Matveev

Dmitry Matveev (Forschungszentrum Juelich), Germany

Corresponding Author: Dmitry Matveev, *DmitryMatveev* <*d.matveev@fz – juelich.de*>

IAEA-CN-316-3446

Materials: via Indico sever:



[REGULAR TWIN POSTER] THE DIVERTOR TOKAMAK TEST FACILITY: MACHINE DESIGN, CONSTRUCTION AND COMMISSIONING

Gian Mario Polli

Gian Mario Polli (ENEA, DTT Scarl), Italy

Corresponding Author: Gian Mario Polli, *GianMarioPolli* < *gianmario.polli@enea.it* >

IAEA-CN-316-3447

Materials: via Indico sever:



[REGULAR TWIN POSTER] WEST OPERATION â"RELIABILITY AND AVAILABILITY OF A LONG PULSE FUSION TOKAMAK

Valerie LAMAIISON

Valerie LAMAIISON (CEA Cadarache), France

Corresponding Author: Valerie LAMAIISON, *ValerieLAMAIISON* < *valerie.lamaison@cea.fr* >

IAEA-CN-316-3448

Materials: via Indico sever:



[REGULAR TWIN POSTER] Design and qualification activity of the first divertor of the DIVERTOR TOKAMAK TEST FACILITY

Selanna Roccella

Selanna Roccella (ENEA), Italy

Corresponding Author: Selanna Roccella, *SelannaRoccella* < *selanna.roccella@enea.it* >

IAEA-CN-316-3449

Materials: via Indico sever:



[REGULAR TWIN POSTER] ACTIVELY COOLED PLASMA FACING COMPONENTS DESIGN FOR W7-X AND JT-60SA IN SUPPORT OF THE ITER DIVERTOR

Marianne Richou

Marianne Richou, France

Corresponding Author: Marianne Richou, *MarianneRichou* < *marianne.richou@cea.fr* >

IAEA-CN-316-3450

Materials: via Indico sever:



**[REGULAR TWIN POSTER] PERFORMANCE EVALUATION
OF TUNGSTEN FIBER-REINFORCED TUNGSTEN
COMPOSITES DEVELOPED AT SWIP FOR APPLICATION IN
NUCLEAR FUSION REACTORS**

Juan Du

Juan Du (Southwestern Institute of Physics (SWIP), China

Corresponding Author: Juan Du, *JuanDu* < *dujuan@swip.ac.cn* >

IAEA-CN-316-3452

Materials: via Indico sever:



**[REGULAR TWIN POSTER] H-mode operation scenarios in
JT-60SA initial research phase predicted by integrated
core-pedestal-SOL/divertor simulation**

Nobuyuki AIBA

Nobuyuki AIBA (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Nobuyuki AIBA, *NobuyukiAIBA* < *aiba.nobuyuki@qst.go.jp* >

IAEA-CN-316-3453

Materials: via Indico sever:



[REGULAR TWIN POSTER] UK STEP TOWARDS A FUSION POWER PLANT PLASMA

Hendrik Meyer

Hendrik Meyer (UKIFS), United Kingdom

Corresponding Author: Hendrik Meyer, *HendrikMeyer* < *hendrik.meyer@ukifs.uk* >

IAEA-CN-316-3454

Materials: via Indico sever:



[REGULAR TWIN POSTER] A TALE OF TWO (VISCO)CITIES
Electromagnetic Turbulence and Transport Bifurcations:
Implications for Next- Generation Fusion Power Plants

Daniel Kennedy

Daniel Kennedy (UKAEA), United Kingdom

Corresponding Author: Daniel Kennedy, *DanielKennedy* < *daniel.kennedy@ukaea.uk* >

IAEA-CN-316-3455

Materials: via Indico sever:



**[REGULAR TWIN POSTER] GLOBAL DISPERSION AND
NONLINEAR DYNAMICS IN PLASMAS MODELED FOR
JT-60U STRONGLY REVERSED MAGNETIC SHEAR
CONFIGURATION EXHIBITING A SIGNATURE OF ITBS
FROM L-MODE CHARACTERISTICS**

Rui Zhao

Rui Zhao (Kyoto University), Japan

Corresponding Author: Rui Zhao, *RuiZhao* < *zhao.rui.27d@st.kyoto-u.ac.jp* >

IAEA-CN-316-3457



Materials: via Indico sever:

[REGULAR TWIN POSTER] DEVELOPMENT OF DATA ASSIMILATION SYSTEM ASTI TOWARD DIGITAL TWIN CONTROL OF FUSION PLASMA

Yuya Morishita

Yuya Morishita (Kyoto University), Japan

Corresponding Author: Yuya Morishita, *YuyaMorishita* < *morishita.yuya.7x@kyoto-u.ac.jp* >

IAEA-CN-316-3459

Materials: via Indico sever:



[REGULAR TWIN POSTER] ITER DISRUPTION MITIGATION SYSTEM DESIGN AND APPLICATION STRATEGY

Stefan Jachmich

Stefan Jachmich (ITER Organization), ITER Organization

Corresponding Author: Stefan Jachmich, *StefanJachmich* < *stefan.jachmich@iter.org* >

IAEA-CN-316-3460

Materials: via Indico sever:



[REGULAR TWIN POSTER] TRT PLASMA CONTROL COMPLEXES CONCEPTUAL DESIGN ON THE BASE OF THE ITER FUSION TECHNOLOGY DEVELOPMENT

Anatoly Krasilnikov

Anatoly Krasilnikov (Director Institution @Project center ITER"), Russia

Corresponding Author: Anatoly Krasilnikov, *AnatolyKrasilnikov* <*a.krasilnikov@iterrf.ru*>

IAEA-CN-316-3461

Materials: via Indico sever:



[REGULAR TWIN POSTER] Development of Low Inductive Electric Field Plasma Start-up in JT-60SA

Takuma Wakatsuki

Takuma Wakatsuki (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Takuma Wakatsuki, *TakumaWakatsuki* < *wakatsuki.takuma@qst.go.jp* >

IAEA-CN-316-3463

Materials: via Indico sever:



[REGULAR TWIN POSTER] MULTI-MACHINE VALIDATION OF PLASMA INITIATION MODELLING AND PROSPECTS FOR FUTURE DEVICES

Hyun-Tae Kim

Hyun-Tae Kim (United Kingdom Atomic Energy Authority), United Kingdom

Corresponding Author: Hyun-Tae Kim, *Hyun – TaeKim* < *hyun – tae.kim@ukaea.uk* >

IAEA-CN-316-3464

Materials: via Indico sever:



[REGULAR TWIN POSTER] DIRECT CONTROL OF TURBULENCE FOR IMPROVED PLASMA CONFINEMENT

Toshiki Kinoshita

Toshiki Kinoshita (Kyushu university), Japan

Corresponding Author: Toshiki Kinoshita, *ToshikiKinoshita* <*t.kinoshita@triham.kyushu-u.ac.jp*>

IAEA-CN-316-3465

Materials: via Indico sever:



**[REGULAR TWIN POSTER] DEVELOPMENT OF
EQUILIBRIUM CONTROL SIMULATOR AND
EXPERIMENTAL VALIDATION OF ADVANCED ISO-FLUX
EQUILIBRIUM CONTROL DURING THE FIRST
OPERATIONAL PHASE OF JT-60SA**

Shizuo Inoue

Shizuo Inoue (QST), Japan

Corresponding Author: Shizuo Inoue, *ShizuoInoue* < inoue.shizuo@qst.go.jp >

IAEA-CN-316-3466

Materials: via Indico sever:



[REGULAR TWIN POSTER] PLASMA CONTROL EXPERIMENTS IN JET DEUTERIUM-TRITIUM PLASMAS

Matteo Baruzzo

Matteo Baruzzo (ENEA, Consorzio RFX), Italy

Corresponding Author: Matteo Baruzzo, *MatteoBaruzzo* < *matteo.baruzzo@igi.cnr.it* >

IAEA-CN-316-3467

Materials: via Indico sever:



[REGULAR TWIN POSTER] Comprehensive Simulations of Bursting and Non-Bursting Alfvén Waves in ICRF Heated Tokamak Plasmas

JIALEI Wang

JIALEI Wang (National Institute for Fusion Science), Japan

Corresponding Author: JIALEI Wang, *JIALEIWang* < *wang.jialei@nifs.ac.jp* >

IAEA-CN-316-3469

Materials: via Indico sever:



[REGULAR TWIN POSTER] Turbulence, zonal flows, and global modes in burning plasmas: code development and simulations

Axel K  nies

Axel K  nies (Max-Planck-Institut f  r Plasmaphysik), Germany

Corresponding Author: Axel K  nies, *AxelKnies* < *axel.koenies@ipp.mpg.de* >

IAEA-CN-316-3470

Materials: via Indico sever:



[REGULAR TWIN POSTER] THEORY AND SIMULATION OF PHASE SPACE TRANSPORT IN BURNING PLASMAS

Fulvio Zonca

Fulvio Zonca (ENEA, Frascati), Italy

Corresponding Author: Fulvio Zonca, *FulvioZonca* < *fulvio.zonca@enea.it* >

IAEA-CN-316-3471

Materials: via Indico sever:



**[REGULAR TWIN POSTER] FUSION
ALPHA-PARTICLE-DRIVEN ALFVEN EIGENMODES IN JET
DT PLASMAS: EXPERIMENTS AND THEORY**

Sergei Sharapov

Sergei Sharapov (UKAEA), United Kingdom

Corresponding Author: Sergei Sharapov, *SergeiSharapov* < *sergeisharapov@hotmail.com* >

IAEA-CN-316-3472

Materials: via Indico sever:



[REGULAR TWIN POSTER] Advancing Tritium Fueling for DT Fusion in HL-3: Innovations in SMI Techniques and Physics-Based Tritium Fueling Strategies

Guoliang Xiao

Guoliang Xiao (Southwestern Institute of Physics, China), China

Corresponding Author: Guoliang Xiao, *GuoliangXiao* < *xiaogl@swip.ac.cn* >

IAEA-CN-316-3473

Materials: via Indico sever:



[REGULAR TWIN POSTER] JOREK simulation of injection assimilation and radiation asymmetry during ITER H-mode dual SPIs

Di Hu

Di Hu (Beihang University), China

Corresponding Author: Di Hu, *DiHu* < *hudi2@buaa.edu.cn* >

IAEA-CN-316-3474

Materials: via Indico sever:



[REGULAR TWIN POSTER] Hybrid kinetic-MHD studies of runaway electron beam termination events

Hannes Bergström

Hannes Bergström, Germany

Corresponding Author: Hannes Bergström, *HannesBergström* < hannes.bergstroem@ipp.mpg.de >

IAEA-CN-316-3475

Materials: via Indico sever:



[REGULAR TWIN POSTER] Piecewise omnigenous fields: a radically new family of optimized magnetic fields for stellarator reactors

Jose Luis Velasco Garasa

Jose Luis Velasco Garasa (Laboratorio Nacional de Fusión, CIEMAT), Spain

Corresponding Author: Jose Luis Velasco Garasa, *JoseLuisVelascoGarasa* < *jose Luis.velasco@ciemat.es* >

IAEA-CN-316-3476



Materials: via Indico sever:

[REGULAR TWIN POSTER] MODELLING OF MILDLY RELATIVISTIC RUNAWAY ELECTRONS âDEVELOPMENT OF REDUCED-KINETIC MODEL AND VALIDATION IN KSTAR OHMIC STARTUP

Yeongsun Lee

Yeongsun Lee (Seoul national university/Seoul), Korea, Republic of

Corresponding Author: Yeongsun Lee, *Yeongsun.Lee* <00pago00@gmail.com >

IAEA-CN-316-3477

Materials: via Indico sever:



**[REGULAR TWIN POSTER] A novel method to optimize
omnigenity like quasisymmetry for stellarators**

Caoxiang Zhu

Caoxiang Zhu (University of Science and Technology of China), China

Corresponding Author: Caoxiang Zhu, *CaoxiangZhu* <caoxiangzhu@gmail.com >

IAEA-CN-316-3478

Materials: via Indico sever:



[REGULAR TWIN POSTER] OVERVIEW OF THE DCLL BREEDING BLANKET FOR HELIAS 5-B AND FURTHER STEPS TOWARDS A NOVEL QI DEVICE

IOLE PALERMO

IOLE PALERMO (CIEMAT), Spain

Corresponding Author: IOLE PALERMO, *IOLEPALERMO* <*iole.palermo@ciemat.es*>

IAEA-CN-316-3479

Materials: via Indico sever:



[REGULAR TWIN POSTER] ANTICIPATING TRITIUM IMPACT AND TRANSFER IN FISSION AND FUSION POWERPLANTS

Elodie Bernard

Elodie Bernard (CEA Cadarache), France

Corresponding Author: Elodie Bernard, *ElodieBernard* < *elodie.bernard@cea.fr* >

IAEA-CN-316-3480



Materials: via Indico sever:

[REGULAR TWIN POSTER] NEUTRONICS FOR ITER NUCLEAR PHASE: INSIGHTS AND LESSONS LEARNT FROM JET DT OPERATION

Rosaria Villari

Rosaria Villari (ENEA), Italy

Corresponding Author: Rosaria Villari, *RosariaVillari* < *rosaria.villari@enea.it* >

IAEA-CN-316-3481

Materials: via Indico sever:



**[REGULAR TWIN POSTER] EXPERIMENTAL STUDY ON
TRITIUM RELEASE FROM Li_2TIO_3 PEBBLES AS TRITIUM
BREEDER THROUGH INTERNATIONAL COLLABORATION
BETWEEN KOREA AND CHINA**

Yi-Hyun PARK

Yi-Hyun PARK (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Yi-Hyun PARK, *Yi – HyunPARK* < *yhpark@kfe.re.kr* >

IAEA-CN-316-3482

Materials: via Indico sever:



**[REGULAR TWIN POSTER] Accomplishment of high duty cycle
beam commissioning of Linear IFMIF Prototype Accelerator
(LIPAc) at 5 MeV, 125 mA D⁺**

Tomoya Akagi

Tomoya Akagi (QST), Japan

Corresponding Author: Tomoya Akagi, *Tomoya.Akagi* < *akagi.tomoya@qst.go.jp* >

IAEA-CN-316-3483

Materials: via Indico sever:



[REGULAR TWIN POSTER] Simulation of tungsten erosion and edge-to-core transport in neon-seeded JET plasmas

Henri Kumpulainen

Henri Kumpulainen (FZJ), Germany

Corresponding Author: Henri Kumpulainen, *HenriKumpulainen* <*h.kumpulainen@fz-juelich.de*>

IAEA-CN-316-3485

Materials: via Indico sever:



[REGULAR TWIN POSTER] Theory-based integrated modelling of tungsten transport: validation in present-day tokamaks and predictions for ITER

Daniel Fajardo

Daniel Fajardo (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Daniel Fajardo, *DanielFajardo* < *daniel.fajardo@ipp.mpg.de* >

IAEA-CN-316-3486

Materials: via Indico sever:



[REGULAR TWIN POSTER] TESTING TUNGSTEN PLASMA FACING COMPONENTS IN WEST AND AUG TOKAMAKS : LESSONS FOR ITER

yann corre

yann corre (FrCEAIRFM), France

Corresponding Author: yann corre, *yanncorre* < *yann.corre@cea.fr* >

IAEA-CN-316-3487

Materials: via Indico sever:



[REGULAR TWIN POSTER] Tungsten limiter Start-up experiments in different boronization states in support of ITER

Jörg Hobirk

Jörg Hobirk (IPP Garching), Germany

Corresponding Author: Jörg Hobirk, *JrgHobirk* <joerg.hobirk@ipp.mpg.de>

IAEA-CN-316-3489

Materials: via Indico sever:



[REGULAR TWIN POSTER] RESULTS OF ELECTRON CYCLOTRON HEATING AND CURRENT DRIVE SYSTEM OPERATION IN THE INTEGRATED COMMISSIONING PHASE ON JT-60SA

Hibiki Yamazaki

Hibiki Yamazaki (National Institutes for Quantum Science and Technology (QST)), Japan

Corresponding Author: Hibiki Yamazaki, *HibikiYamazaki* < *yamazaki.hibiki@qst.go.jp* >

IAEA-CN-316-3490

Materials: via Indico sever:



[REGULAR TWIN POSTER] First performance test of multi-frequency gyrotron for ITER and fusion devices

Takahiro Shinya

Takahiro Shinya (QST), Japan

Corresponding Author: Takahiro Shinya, *TakahiroShinya* < *shinya.takahiro@qst.go.jp* >

IAEA-CN-316-3491

Materials: via Indico sever:



[REGULAR TWIN POSTER] PERFORMANCE OF JT-60SA SUPERCONDUCTING MAGNET OPERATION IN INTEGRATED COMMISSIONING TEST

Katsuhiko TSUCHIYA

Katsuhiko TSUCHIYA (QST, Naka), Japan

Corresponding Author: Katsuhiko TSUCHIYA, *KatsuhikoTSUCHIYA* < *tsuchiya.katsuhiko@qst.go.jp* >

IAEA-CN-316-3492



Materials: via Indico sever:

[REGULAR TWIN POSTER] OVERVIEW OF RECENT RESULTS IN RESEARCH TACKLING REMOTE MAINTENANCE CHALLENGES OF FUTURE FUSION ENERGY DEVICES

Robert Skilton

Robert Skilton (UK Atomic Energy Authority), United Kingdom

Corresponding Author: Robert Skilton, *RobertSkilton* < *robert.skilton@ukaea.uk* >

IAEA-CN-316-3493

Materials: via Indico sever:



[REGULAR TWIN POSTER] Construction Progress of Chinese First Quasi-axisymmetric Stellarator (CFQS) and Preliminary Results in the CFQS-Test Device

Yuhong Xu

Yuhong Xu (Southwest Jiaotong University), China

Corresponding Author: Yuhong Xu, *YuhongXu* <*xyuhong@swjtu.edu.cn*>

IAEA-CN-316-3494

Materials: via Indico sever:



[REGULAR TWIN POSTER] Peeling limited pedestals in JET, MAST-U and TCV: effect of density and isotope mass in deuterium and tritium-rich plasma on pedestal structure and stability and validation of pedestal predictions for ITER.

Lorenzo Frassinetti

Lorenzo Frassinetti (KTH Royal Institute of Technology), Sweden

Corresponding Author: Lorenzo Frassinetti, *LorenzoFrassinetti* <lorenzof@kth.se >

IAEA-CN-316-3498

Materials: via Indico sever:



**[REGULAR TWIN POSTER] CORE AND EDGE TRANSPORT
OF SCENARIO WITH INTERNAL TRANSPORT BARRIER IN
TRITIUM AND DEUTERIUM-TRITIUM PLASMAS IN JET
WITH BE/W WALL**

Costanza Maggi

Costanza Maggi (UKAEA), United Kingdom

Corresponding Author: Costanza Maggi, *CostanzaMaggi* < *costanza.maggi@ukaea.uk* >

IAEA-CN-316-3499

Materials: via Indico sever:



[REGULAR TWIN POSTER] DEVELOPMENT OF HIGH POLOIDAL BETA SCENARIO FOR LONG-PULSE OPERATION IN COLLABORATION BETWEEN DIII-D AND KSTAR

Youngmu Jeon

Youngmu Jeon (Korea Institute of Fusion Energy), Korea, Republic of

Corresponding Author: Youngmu Jeon, *Youngmu.Jeon* <ymjeon@kfe.re.kr >

IAEA-CN-316-3501

Materials: via Indico sever:



[REGULAR TWIN POSTER] Fusion research and development strategy for JA DEMO investigated in QST

Hide Nobu Takenaga

Hide Nobu Takenaga (National Institutes for Quantum Science and Technology), Japan

Corresponding Author: Hide Nobu Takenaga, *Hide Nobu Takenaga* < *takenaga.hide nobu@qst.go.jp* >

IAEA-CN-316-3502

Materials: via Indico sever:



[REGULAR TWIN POSTER] STEP: Driving a pathway to accelerated fusion delivery

Howard Wilson

Howard Wilson (UK Industrial Fusion Solutions), United Kingdom

Corresponding Author: Howard Wilson, *HowardWilson* < *howard.wilson@ukifs.uk* >

IAEA-CN-316-3503

Materials: via Indico sever:



[REGULAR TWIN POSTER] Towards a Stellarator Fusion Reactor: Achievements of the European Stellarator Program

Felix Warmer

Felix Warmer (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Felix Warmer, *FelixWarmer* < *felix.warmer@ipp.mpg.de* >

IAEA-CN-316-3504

Materials: via Indico sever:



[REGULAR TWIN POSTER] Tokamak Energy's high temperature superconducting magnet spherical tokamak fusion pilot plant concept

Nicolas Lopez

Nicolas Lopez (Tokamak Energy Ltd), United Kingdom

Corresponding Author: Nicolas Lopez, *NicolasLopez* < *nicolas.lopez@tokamakenergy.com* >

IAEA-CN-316-3505

Materials: via Indico sever:



[REGULAR TWIN POSTER] Establishment and Progress of Korean Fusion Reactor Design Activities: A Coordinated National Approach

JAE MIN Kwon

JAE MIN Kwon (National Fusion Research Institute), Korea, Republic of

Corresponding Author: JAE MIN Kwon, *JAEMINKwon* <*jmkwon74@kfe.re.kr*>

IAEA-CN-316-3506



Materials: via Indico sever:

Plasma parallel transport physics in a tokamak thermal quench

Yanzeng Zhang

Yanzeng Zhang (University of Science and Technology of China), China

Corresponding Author: Yanzeng Zhang, *YanzengZhang* <yzengzhang@ustc.edu.cn>

IAEA-CN-316-3507

Materials: via Indico sever:



Preliminary Engineering Analysis for CN HCCB TBM Regarding ITER New Baseline Scenario

XINGHUA WU

XINGHUA WU (CHINA), China

Corresponding Author: XINGHUA WU, *XINGHUAWU* < *wuxh@swip.ac.cn* >

IAEA-CN-316-3508

Materials: via Indico sever:



NEXT-GENERATION NUCLEAR TECHNOLOGIES FOR NET-ZERO EMISSIONS: AN INTERDISCIPLINARY EVALUATION OF NUCLEAR FUSION

Godwin Okewu Omeje

Godwin Okewu Omeje, United Kingdom

Corresponding Author: Godwin Okewu Omeje, *GodwinOkewuOmeje* < 240403919@aston.ac.uk >

IAEA-CN-316-3509

Materials: via Indico sever:



Surface damage and deuterium retention in tungsten under high-flux detached recombining linear plasmas

Jipeng Zhu

Jipeng Zhu (Institute of Materials, China Academy of Engineering and Physics), China

Corresponding Author: Jipeng Zhu, *JipengZhu* < *zhu_jipeng0806@163.com* >

IAEA-CN-316-3512

Materials: via Indico sever:



Highly effective hydrogen isotope separation through quantum sieving

Renjin Xiong

Renjin Xiong (Institute of Materials, China Academy of Engineering Physics), China

Corresponding Author: Renjin Xiong, *RenjinXiong* <xrj902@163.com>

IAEA-CN-316-3513

Materials: via Indico sever:



Experimental Detection of Charged Fusion Products in a Compact Electron-Catalyzed Fusion System Using Calibrated CR-39 Diagnostics

Zhifei Li

Zhifei Li (Alpha Ring US Inc.), United States

Corresponding Author: Zhifei Li, *ZhifeiLi <fay@alpharing.com>*

IAEA-CN-316-3514

Materials: via Indico sever:



Predictive Modeling of Operational Stability in RF Negative Ion Sources Based on Experimental Parameters

Yang Li

Yang Li (East China University of Technology), China

Corresponding Author: Yang Li, *YangLi* < yang960617@foxmail.com >

IAEA-CN-316-3518

Materials: via Indico sever:



Numerical Simulation of Compositional Redistribution Driven by isotopologue Fractionation During Solidification of D-T Fuel in ICF Targets

Jiaqi Zhang

Jiaqi Zhang (The University of Osaka), Japan

Corresponding Author: Jiaqi Zhang, *JiaqiZhang* < *zhang.jiaqi.ile@osaka-u.ac.jp* >

IAEA-CN-316-3521



Materials: via Indico sever:

OBSERVATION OF CORE ION ENERGY INCREASE CAUSED BY THE LANDAU DAMPING OF MHD WAVE IN THE PERIPHERY OF LHD PLASMA

Katsumi Ida

Katsumi Ida (National Institute for Fusion Science), Japan

Corresponding Author: Katsumi Ida, *KatsumiIda* <ida@nifs.ac.jp>

IAEA-CN-316-3522

Materials: via Indico sever:



IMMERSIVE VR-BASED VISUALIZATION AND ANALYSIS OF FUSION PLASMAS USING DIGITAL-LHD AND VIRTUAL-LHD

Hiroaki Ohtani

Hiroaki Ohtani (National Institute for Fusion Science), Japan

Corresponding Author: Hiroaki Ohtani, *HiroakiOhtani* < ohtani.hiroaki@nifs.ac.jp >

IAEA-CN-316-3523

Materials: via Indico sever:



OVERVIEW OF THE WEST-ITER DIAGNOSTIC INSTRUMENTATION (WIDIA) COLLABORATION ACTIVITIES

Didier Mazon

Didier Mazon (CEA Cadarache), France

Corresponding Author: Didier Mazon, *DidierMazon* < *didier.mazon@cea.fr* >

IAEA-CN-316-3525

Materials: via Indico sever:



Advanced Power Supply solutions Meeting High Standard for Fusion Research

Emanuele massarelli

Emanuele massarelli, Italy

Corresponding Author: Emanuele massarelli, *Emanuelemassarelli* <uffcom.emassarelli@eei.it>

IAEA-CN-316-3527

Materials: via Indico sever:



Achieving Equilibrium in FRCs: A Self-Consistent Free-Boundary Approach Validated Across High-Beta Regimes

ZhiHao Tao

ZhiHao Tao (HHMAX-Energy (Chengdu) Technology Co., Ltd.), China

Corresponding Author: ZhiHao Tao, *ZhiHaoTao* <*zijun_t@163.com*>

IAEA-CN-316-3529

Materials: via Indico sever:



FIRST CAMPAIGN WITH ALTERNATIVE DIVERTOR CONFIGURATIONS IN ASDEX UPGRADE

Tilman Lunt

Tilman Lunt (Max-Planck-Institut für Plasmaphysik), Germany

Corresponding Author: Tilman Lunt, *TilmanLunt* < *tilmann.lunt@ipp.mpg.de* >

IAEA-CN-316-3530

Materials: via Indico sever:



High-power stray radiation experiments for the ITER Upper Launcher with a real-size mock-up - First results

Falk Braunmüller

Falk Braunmüller (EPFL (École Polytechnique Fédérale de Lausanne)), Switzerland

Corresponding Author: Falk Braunmüller, *FalkBraunmüller* < falk.braunmuller@epfl.ch >

IAEA-CN-316-3531

Materials: via Indico sever:



TITANIUM ADDITION AND THICKNESS VARIATION RESEARCH IN TUNGSTEN BLOCK BEHAVIOR AS FUSION PLASMA FACING FIRST WALL

Juana Gervasoni

Juana Gervasoni (CNEA), Argentina

Corresponding Author: Juana Gervasoni, *JuanaGervasoni* < *juana.gervasoni@gmail.com* >

IAEA-CN-316-3532



Materials: via Indico sever:

Investigation of Broadband-laser-induced Plasma Interaction and ablation properties

Peipei Wang

Peipei Wang, China

Corresponding Author: Peipei Wang, *PeipeiWang* < *ppwang_{silp}@163.com* >

IAEA-CN-316-3533

Materials: via Indico sever:



IAEA Closing Address

Mikhail Chudakov

Mikhail Chudakov (IAEA Deputy Director General and Head of the Department of Nuclear Energy), N/A

Corresponding Author: Mikhail Chudakov,

IAEA-CN-316-3534



Materials: via Indico sever:

Enabling Adaptive Detachment Control: Novel Insights from Calibration-Free X-Point Phase Difference

Yue Yu

Yue Yu (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Yue Yu, *YueYu* < yuyue22@mail.ustc.edu.cn >

IAEA-CN-316-3535

Materials: via Indico sever:



EFFECTS OF THE MULTI-MODE ISLANDS ON THE RUNAWAY ELECTRON SUPPRESSION ON J-TEXT

Zhifang Lin

Zhifang Lin (Jiangsu Normal University), China

Corresponding Author: Zhifang Lin, *Zhi fangLin* < *zflin@jsnu.edu.cn* >

IAEA-CN-316-3536

Materials: via Indico sever:



MULTI-SCALE AND MULTI-DIMENSIONAL RESIDUAL STRESS AND ITS ROLES ON STRUCTURAL INTEGRITY FOR FUSION IN-VESSEL COMPONENTS

Yiqiang Wang

Yiqiang Wang (UKAEA), United Kingdom

Corresponding Author: Yiqiang Wang, *YiqiangWang* < *yiqiang.wang@ukaea.uk* >

IAEA-CN-316-3537

Materials: via Indico sever:



NON-GYROKINETIC HIGH-FREQUENCY MODE INSTABILITY FOR TOKAMAK EDGE LIKE GRADIENTS

Mario Raeth

Mario Raeth (Max Planck Institute for Plasma Physics), Germany

Corresponding Author: Mario Raeth, *MarioRaeth* < mario.raeth@ipp.mpg.de >

IAEA-CN-316-3538

Materials: via Indico sever:



[REGULAR TWIN POSTER] LONG-PULSE ELM-FREE H-MODE REGIME WITH FEEDBACK-CONTROLLED DETACHMENT UNDER BORONIZED METAL WALL IN EAST

Guosheng Xu

Guosheng Xu (Institute of Plasma Physics, Chinese Academy of Sciences), China

Corresponding Author: Guosheng Xu, *GuoshengXu* < *gsxu@ipp.ac.cn* >

IAEA-CN-316-3539

Materials: via Indico sever:



NF Awards 2024-2025 Announcement and Speeches

, N/A

Corresponding Author: ,

IAEA-CN-316-3540

Materials: via Indico sever:



Announcement of FEC 2027 Venue

Yeongkook Oh

Yeongkook Oh (President of Korea Institute of Fusion Energy), N/A

Corresponding Author: Yeongkook Oh,

IAEA-CN-316-3541

Materials: via Indico sever:



Status and prospects of Fusion Research at the Southwestern Institute of Physics

Xuru Duan

Xuru Duan (Southwestern Institute of Physics), N/A

Corresponding Author: Xuru Duan, *XuruDuan* < *duan.xr@swip.ac.cn* >

IAEA-CN-316-3543

Materials: via Indico sever:



FEC 2025 Administrative and Technical Remarks

IAEA Scientific Secretaries, Takashi Inoue, Elisabeth Wolfrum

IAEA Scientific Secretaries, Takashi Inoue (QST Naka), Elisabeth Wolfrum (Max Planck Institut fuer Plasmaphysik), N/A

Corresponding Author: IAEA Scientific Secretaries, Takashi Inoue, Elisabeth Wolfrum, *TakashiInoue* <*inoue.takashi@qst.go.jp*>, *ElisabethWolfrum* <*e.wolfrum@ipp.mpg.de*>

IAEA-CN-316-3544

Materials: via Indico sever:



[REGULAR TWIN POSTER] OBSERVATION OF CORE ION ENERGY INCREASE CAUSED BY THE LANDAU DAMPING OF MHD WAVE IN THE PERIPHERY OF LHD PLASMA

Katsumi Ida

Katsumi Ida (National Institute for Fusion Science), Japan

Corresponding Author: Katsumi Ida, *KatsumiIda* < *ida@nifs.ac.jp* >

IAEA-CN-316-3545

Materials: via Indico sever:



[REGULAR TWIN POSTER] FIRST CAMPAIGN WITH ALTERNATIVE DIVERTOR CONFIGURATIONS IN ASDEX UPGRADE

Tilmann Lunt

Tilmann Lunt (Max-Planck-Institut für Plasmaphysik), Germany

Corresponding Author: Tilmann Lunt, *TilmannLunt* < *tilmann.lunt@ipp.mpg.de* >

IAEA-CN-316-3546

Materials: via Indico sever:



Conference Closing

Host Country Representative

Host Country Representative, N/A

Corresponding Author: Host Country Representative,

IAEA-CN-316-3547

Materials: via Indico sever:

