



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

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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

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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 14, 2025)

2 Keynote presentations

18 Overview talks

72 Regular talks

4 Rapporteur/Rapporteured talks

35 Overview posters

488 Regular posters

2 Post deadline talks

24 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).

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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
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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	Y. Liang 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
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TH/3 & EX/4

Disruption, RE, Stellarator

Chairperson: Murakami Sadayoshi (Japan)

(14:00-15:40)

14:00	TH/3-1	D. Hu JOEREK 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)

(08:30-09:50)

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

**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 SMI 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	H. Yamazaki Results of electron cyclotron heating and current drive system operation in the integrated commissioning phase on JT-60SA	Japan
	TEC/5-3b	T. Shinya First performance test of multi-frequency gyrotron for ITER and fusion devices	Japan

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

2733	Jeronimo Garcia FIRST JT-60SA PLASMA OPERATION AND PLANS IN VIEW OF ITER AND DEMO	France
2806	Kenji Tanaka RECENT ADVANCES IN PLASMA CONTROL AND PHYSICS RESEARCH IN THE LARGE HELICAL DEVICE	Japan
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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	ITER Organization

3461	[REGULAR TWIN POSTER] ITER DISRUPTION MITIGATION SYSTEM DESIGN AND APPLICATION STRATEGY Anatoly Krasilnikov	Russia
3463	[REGULAR TWIN POSTER] TRT PLASMA CONTROL COMPLEXES CONCEPTUAL DESIGN ON THE BASE OF THE ITER FUSION TECHNOLOGY DEVELOPMENT Takuma Wakatsuki	Japan
3464	[REGULAR TWIN POSTER] Development of Low Inductive Electric Field Plasma Start-up in JT-60SA Hyun-Tae Kim	United Kingdom
3465	[REGULAR TWIN POSTER] MULTI-MACHINE VALIDATION OF PLASMA INITIATION MODELLING AND PROSPECTS FOR FUTURE DEVICES Toshiki Kinoshita	Japan
3466	[REGULAR TWIN POSTER] DIRECT CONTROL OF TURBULENCE FOR IMPROVED PLASMA CONFINEMENT Shizuo Inoue	Japan
3467	[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 Matteo Baruzzo	Italy
3469	[REGULAR TWIN POSTER] PLASMA CONTROL EXPERIMENTS IN JET DEUTERIUM-TRITIUM PLASMAS JIALEI Wang	Japan
3470	[REGULAR TWIN POSTER] Comprehensive Simulations of Bursting and Non-Bursting Alfvén Waves in ICRF Heated Tokamak Plasmas Axel Könies	Germany
3471	[REGULAR TWIN POSTER] Turbulence, zonal flows, and global modes in burning plasmas: code development and simulations Fulvio Zonca	Italy
3472	[REGULAR TWIN POSTER] THEORY AND SIMULATION OF PHASE SPACE TRANSPORT IN BURNING PLASMAS Sergei Sharapov	United Kingdom
3473	[REGULAR TWIN POSTER] FUSION ALPHA-PARTICLE-DRIVEN ALFVEN EIGENMODES IN JET DT PLASMAS: EXPERIMENTS AND THEORY Guoliang Xiao	China
3474	[REGULAR TWIN POSTER] Advancing Tritium Fueling for DT Fusion in HL-3: Innovations in SMBI Techniques and Physics-Based Tritium Fueling Strategies Di Hu	China
	[REGULAR TWIN POSTER] JOEREK simulation of injection assimilation and radiation asymmetry during ITER H-mode dual SPIs	

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 [REGULAR TWIN POSTER] MODELLING OF MILDLY RELATIVISTIC RUNAWAY ELECTRONS – DEVELOPMENT OF REDUCED-KINETIC MODEL AND VALIDATION IN KSTAR OHMIC STARTUP	Korea, Republic of
3478	Caixiang 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	Germany

3490	[REGULAR TWIN POSTER] Tungsten limiter Start-up experiments in different boronization states in support of ITER Hibiki Yamazaki	Japan
3491	[REGULAR TWIN POSTER] RESULTS OF ELECTRON CYCLOTRON HEATING AND CURRENT DRIVE SYSTEM OPERATION IN THE INTEGRATED COMMISSIONING PHASE ON JT-60SA 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
- 3539 [REGULAR TWIN POSTER] Establishment and Progress of Korean Fusion Reactor Design Activities: A Coordinated National Approach
Guosheng Xu China
- [REGULAR TWIN POSTER] LONG-PULSE ELM-FREE H-MODE REGIME WITH FEEDBACK-CONTROLLED DETACHMENT UNDER BORONIZED METAL WALL IN EAST

SYSTEM ARCHITECTURE FOR ACTUATOR MANAGEMENT IN ITER PCS

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IAEA-CN-316-2619

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2621

Materials: via Indico sever:



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

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IAEA-CN-316-2623

Materials: via Indico sever:



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

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IAEA-CN-316-2626

Materials: via Indico sever:



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

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IAEA-CN-316-2633



Materials: via Indico sever:

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

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IAEA-CN-316-2634

Materials: via Indico sever:



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

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IAEA-CN-316-2635

Materials: via Indico sever:



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

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IAEA-CN-316-2639

Materials: via Indico sever:



ELIMINATING TOKAMAK MAJOR DISRUPTIONS WITH FEEDBACK

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IAEA-CN-316-2640

Materials: via Indico sever:



Advanced Magnetic Plasma Control Enabled by Reinforcement Learning

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IAEA-CN-316-2645

Materials: via Indico sever:



Reconstructing the Plasma Boundary with a Reduced Set of Diagnostics

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IAEA-CN-316-2653

Materials: via Indico sever:



NEOCLASSICAL THEORY ON LOW FREQUENCY DRIFT ALFVÉN WAVES

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IAEA-CN-316-2657

Materials: via Indico sever:



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

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IAEA-CN-316-2660

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2664



Materials: via Indico sever:

AN OVERVIEW OF THE FIRST EXPERIMENTAL RESULTS WITH DIVERTOR CONFIGURATION DISCHARGES IN THE KTM TOKAMAK

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IAEA-CN-316-2665

Materials: via Indico sever:



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

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IAEA-CN-316-2668

Materials: via Indico sever:



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

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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**

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IAEA-CN-316-2673

Materials: via Indico sever:



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

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IAEA-CN-316-2677

Materials: via Indico sever:



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

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IAEA-CN-316-2678

Materials: via Indico sever:



JOREK contributions to the predictive understanding of transient phenomena in future tokamaks and stellarators

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IAEA-CN-316-2679

Materials: via Indico sever:



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

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IAEA-CN-316-2680

Materials: via Indico sever:



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

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IAEA-CN-316-2681

Materials: via Indico sever:



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

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IAEA-CN-316-2682

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2688



Materials: via Indico sever:

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

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IAEA-CN-316-2689

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2691

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2693

Materials: via Indico sever:



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

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IAEA-CN-316-2694

Materials: via Indico sever:



Development of pure boron pellet for fusion reactor

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IAEA-CN-316-2695

Materials: via Indico sever:



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

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IAEA-CN-316-2696

Materials: via Indico sever:



Experimental identification of coexisting local and non-local turbulence

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IAEA-CN-316-2697

Materials: via Indico sever:



Frequency Hysteresis of MHD Instabilities in Helical and Tokamak Plasmas

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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

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IAEA-CN-316-2699

Materials: via Indico sever:



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

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IAEA-CN-316-2700

Materials: via Indico sever:



DESIGN OF THE ELECTRON CYCLOTRON HEATING EXPANSION SYSTEM ON EAST

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IAEA-CN-316-2701

Materials: via Indico sever:



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

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IAEA-CN-316-2702

Materials: via Indico sever:



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

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IAEA-CN-316-2703

Materials: via Indico sever:



Progress on nonlinear MHD modeling of \tilde{v}_{ux} pumping and hybrid scenario for ASDEX Upgrade plasmas

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IAEA-CN-316-2705

Materials: via Indico sever:



MEASUREMENT OF NUCLEAR REACTION CROSS-SECTION FOR THERMONUCLEAR APPLICATIONS

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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

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IAEA-CN-316-2707

Materials: via Indico sever:



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

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IAEA-CN-316-2708

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2710

Materials: via Indico sever:



Experimental study on configuration dependence of turbulent transport on LHD

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IAEA-CN-316-2712

Materials: via Indico sever:



CURRENT REARRANGEMENT IN MERGING START-UP OF SPHERICAL TOKAMAK PLASMAS

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IAEA-CN-316-2713

Materials: via Indico sever:



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

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IAEA-CN-316-2714

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2716



Materials: via Indico sever:

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

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IAEA-CN-316-2718

Materials: via Indico sever:



PROGRESS IN PLASMA-WALL INTERACTIONS MODELLING FOR EU-DEMO

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IAEA-CN-316-2719

Materials: via Indico sever:



Pulse Design Simulator for JT-60SA

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IAEA-CN-316-2720

Materials: via Indico sever:



Hybrid kinetic-MHD studies of runaway electron beam termination events

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IAEA-CN-316-2721

Materials: via Indico sever:



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

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IAEA-CN-316-2723

Materials: via Indico sever:



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

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IAEA-CN-316-2724

Materials: via Indico sever:



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

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IAEA-CN-316-2727

Materials: via Indico sever:



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

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IAEA-CN-316-2728

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2730



Materials: via Indico sever:

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

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IAEA-CN-316-2731

Materials: via Indico sever:



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

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IAEA-CN-316-2733

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

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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

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IAEA-CN-316-2736



Materials: via Indico sever:

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

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IAEA-CN-316-2737

Materials: via Indico sever:



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

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IAEA-CN-316-2738

Materials: via Indico sever:



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

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IAEA-CN-316-2739

Materials: via Indico sever:



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

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IAEA-CN-316-2740

Materials: via Indico sever:



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

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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

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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

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IAEA-CN-316-2743

Materials: via Indico sever:



Hierarchy of turbulent transport models with the SOLEDGE3X code

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IAEA-CN-316-2744

Materials: via Indico sever:



LIQUID METAL DROPLETS SYSTEMS FOR APPLICATION IN TOKAMAKS AND PLASMA DEVICES

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IAEA-CN-316-2745

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2747

Materials: via Indico sever:



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

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IAEA-CN-316-2748

Materials: via Indico sever:



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

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IAEA-CN-316-2749

Materials: via Indico sever:



FAST: A FUSION ENERGY SYSTEMS INTEGRATION TEST FACILITY

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IAEA-CN-316-2750

Materials: via Indico sever:



Validation of Tungsten Nuclear Data Using the TUD-W benchmark

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IAEA-CN-316-2751

Materials: via Indico sever:



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

Vladimir Timokhin

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IAEA-CN-316-2752



Materials: via Indico sever:

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

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IAEA-CN-316-2753

Materials: via Indico sever:



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

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IAEA-CN-316-2754

Materials: via Indico sever:



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

Evgenii Kiselev

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IAEA-CN-316-2755

Materials: via Indico sever:



Intra-shot Tools for Plasma Scenario Optimization and Magnetic Control

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IAEA-CN-316-2757

Materials: via Indico sever:



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

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IAEA-CN-316-2758

Materials: via Indico sever:



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

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IAEA-CN-316-2760

Materials: via Indico sever:



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

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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

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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

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IAEA-CN-316-2763

Materials: via Indico sever:



Starting DTT infrastructures construction at ENEA Frascati Site

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IAEA-CN-316-2764

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2766

Materials: via Indico sever:



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

Anastasiia Shcherbak

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IAEA-CN-316-2767

Materials: via Indico sever:



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

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IAEA-CN-316-2770

Materials: via Indico sever:



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

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IAEA-CN-316-2778

Materials: via Indico sever:



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

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IAEA-CN-316-2779

Materials: via Indico sever:



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

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IAEA-CN-316-2781

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2783

Materials: via Indico sever:



DIRECT CONTROL OF TURBULENCE FOR IMPROVED PLASMA CONFINEMENT

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IAEA-CN-316-2784

Materials: via Indico sever:



DEVELOPMENT OF INNOVATIVE REPEATABLE POWER LASER FOR LASER FUSION

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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

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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

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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

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IAEA-CN-316-2788

Materials: via Indico sever:



The Divertor Tokamak Test project: progress towards the initial operation

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IAEA-CN-316-2790

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

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IAEA-CN-316-2791

Materials: via Indico sever:



OVERVIEW OF THE DESIGN AND PROCUREMENT OF ECRH SYSTEM FOR DTT

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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

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IAEA-CN-316-2793

Materials: via Indico sever:



INVESTIGATION OF THE MAGNETIC FLUX PUMPING EFFECT IN MAST UPGRADE

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IAEA-CN-316-2794

Materials: via Indico sever:



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

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IAEA-CN-316-2795

Materials: via Indico sever:



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

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IAEA-CN-316-2796

Materials: via Indico sever:



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

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IAEA-CN-316-2797

Materials: via Indico sever:



Lagrangian statistics of heavy impurity transport in drift-wave turbulence

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IAEA-CN-316-2798

Materials: via Indico sever:



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

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IAEA-CN-316-2799

Materials: via Indico sever:



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

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IAEA-CN-316-2800

Materials: via Indico sever:



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

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IAEA-CN-316-2801

Materials: via Indico sever:



RECENT PROGRESS IN THE PILOT GAMMA PDX-SC SUPERCONDUCTING MIRROR

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IAEA-CN-316-2802

Materials: via Indico sever:



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

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IAEA-CN-316-2803

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2805



Materials: via Indico sever:

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

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IAEA-CN-316-2806

Materials: via Indico sever:



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

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IAEA-CN-316-2807

Materials: via Indico sever:



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

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IAEA-CN-316-2808

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2810

Materials: via Indico sever:



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

Tamas Szepesi

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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

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IAEA-CN-316-2812

Materials: via Indico sever:



STEP Exhaust System " Architecture and Technology Development overview

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IAEA-CN-316-2813

Materials: via Indico sever:



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

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IAEA-CN-316-2814

Materials: via Indico sever:



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

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IAEA-CN-316-2815

Materials: via Indico sever:



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

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IAEA-CN-316-2816

Materials: via Indico sever:



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

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IAEA-CN-316-2817

Materials: via Indico sever:



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

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IAEA-CN-316-2818

Materials: via Indico sever:



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

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IAEA-CN-316-2819

Materials: via Indico sever:



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

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IAEA-CN-316-2821

Materials: via Indico sever:



Fast ion transport simulations for the Spherical Tokamak for Energy Production

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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

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IAEA-CN-316-2827

Materials: via Indico sever:



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

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IAEA-CN-316-2828

Materials: via Indico sever:



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

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IAEA-CN-316-2829

Materials: via Indico sever:



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

Kenji Imadera

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IAEA-CN-316-2830

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2832



Materials: via Indico sever:

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

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IAEA-CN-316-2833

Materials: via Indico sever:



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

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IAEA-CN-316-2834

Materials: via Indico sever:



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

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IAEA-CN-316-2835

Materials: via Indico sever:



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

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IAEA-CN-316-2836

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2839



Materials: via Indico sever:

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

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IAEA-CN-316-2840

Materials: via Indico sever:



ESTIMATION OF PLASMA PARAMETERS BASED ON DISCHARGE SETTINGS ON WEST

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IAEA-CN-316-2841

Materials: via Indico sever:



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

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IAEA-CN-316-2842

Materials: via Indico sever:



BORON CARBIDE CERAMICS AS NEUTRON SHIELDING FOR ITER PORT-PLUGS

Andrey Shoshin

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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

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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

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IAEA-CN-316-2845

Materials: via Indico sever:



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

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IAEA-CN-316-2846

Materials: via Indico sever:



ITER DISRUPTION MITIGATION SYSTEM DESIGN AND APPLICATION STRATEGY

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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

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IAEA-CN-316-2848

Materials: via Indico sever:



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

Jaewook Kim

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IAEA-CN-316-2849

Materials: via Indico sever:



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

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IAEA-CN-316-2850

Materials: via Indico sever:



CONFINEMENT PROPERTY IN THE JT-60SA FIRST OPERATIONAL PHASE

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IAEA-CN-316-2851

Materials: via Indico sever:



Developing Open Machine Learning Benchmarks for Tokamak Event Prediction from MAST

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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

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, *MiguelPerez* < miguel.perez@f4e.europa.eu >

IAEA-CN-316-2854

Materials: via Indico sever:



Progress and innovations in the TCV tokamak research programme

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IAEA-CN-316-2855

Materials: via Indico sever:



Implementation of a tightly baffled long-legged divertor in TCV

Holger Reimerdes

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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

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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

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IAEA-CN-316-2858



Materials: via Indico sever:

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

Sandra Julia Torres

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IAEA-CN-316-2860

Materials: via Indico sever:



Active spectroscopy for atomic H and D measurements in fusion

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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

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IAEA-CN-316-2865

Materials: via Indico sever:



Recent advances at the Globus-M2 tokamak

Nikolai Bakharev

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IAEA-CN-316-2866

Materials: via Indico sever:



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

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IAEA-CN-316-2867

Materials: via Indico sever:



Integrated Modelling activities in support of the ITER re-baseline

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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

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IAEA-CN-316-2869

Materials: via Indico sever:



A Global Licensing and Regulation Framework for Fusion Energy

Ralf Kaiser

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IAEA-CN-316-2870

Materials: via Indico sever:



STEP: NOVEL POWER INFRASTRUCTURE FOR FUSION POWERPLANTS

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IAEA-CN-316-2872

Materials: via Indico sever:



RECOVERY OF ITER SECTOR MODULES FROM CRITICAL ISSUES

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IAEA-CN-316-2875

Materials: via Indico sever:



IMPURITY RADIATION SEEDING OF NEOCLASSICAL TEARING MODE GROWTH

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IAEA-CN-316-2876

Materials: via Indico sever:



Evaluation of solid spherical fuel compression by comparison with simulation

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IAEA-CN-316-2877

Materials: via Indico sever:



Modeling of heat flux on the main limiter in EAST

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IAEA-CN-316-2878

Materials: via Indico sever:



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

Liqing Xu

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IAEA-CN-316-2879

Materials: via Indico sever:



Evaluation of plasma performance in JA DEMO steady-state operation

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IAEA-CN-316-2880

Materials: via Indico sever:



Virtual Tokamak for Integrated Physics and Engineering Analysis

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IAEA-CN-316-2881



Materials: via Indico sever:

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

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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

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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

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IAEA-CN-316-2884

Materials: via Indico sever:



Can turbulent transport in optimized stellarators be lower than tokamaks

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IAEA-CN-316-2885

Materials: via Indico sever:



HIGH GAIN FUSION BURNING IN INERTIAL CONFINEMENT FUSION PLASMA

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IAEA-CN-316-2887

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2890

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2892

Materials: via Indico sever:



SIMULATIONS OF RMP CONFIGURATIONS FOR TUNGSTEN IMPURITY CONTROL IN EAST TOKAMAK

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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

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IAEA-CN-316-2894

Materials: via Indico sever:



IMPROVEMENT OF PLASMA PERFORMANCE BY EDGE ECRH POWER DEPOSITION IN EAST

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IAEA-CN-316-2895

Materials: via Indico sever:



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

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IAEA-CN-316-2896

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2898

Materials: via Indico sever:



Pumping requirements for core plasma performance in STEP using JINTRAC

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IAEA-CN-316-2899

Materials: via Indico sever:



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

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IAEA-CN-316-2900

Materials: via Indico sever:



Transport in high-performance plasmas of the TJ-II stellarator: From first-principles simulations to experimental validation

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IAEA-CN-316-2902

Materials: via Indico sever:



PROGRESS OF ITER AND ITS VALUE FOR FUSION

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IAEA-CN-316-2903

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2905

Materials: via Indico sever:



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

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IAEA-CN-316-2906

Materials: via Indico sever:



Conceptual design of the Fusion ENergY eXperiment (FENYX)

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IAEA-CN-316-2907

Materials: via Indico sever:



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

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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

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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

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IAEA-CN-316-2911

Materials: via Indico sever:



Flux Pumping in ASDEX Upgrade, JET and JOREK

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IAEA-CN-316-2912

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2914

Materials: via Indico sever:



OVERVIEW OF PLASMA DISRUPTION MITIGATION ON J-TEXT TOKAMAK

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IAEA-CN-316-2915

Materials: via Indico sever:



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

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IAEA-CN-316-2916

Materials: via Indico sever:



Control of energetic particle modes on the TCV tokamak

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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

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IAEA-CN-316-2918

Materials: via Indico sever:



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

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IAEA-CN-316-2919

Materials: via Indico sever:



Neutronics Analysis of EU DEMO Conducted at the Lithuanian Energy Institute

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IAEA-CN-316-2921

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2923

Materials: via Indico sever:



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

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IAEA-CN-316-2924

Materials: via Indico sever:



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

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IAEA-CN-316-2926

Materials: via Indico sever:



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

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IAEA-CN-316-2927

Materials: via Indico sever:



STEP INBOARD SYSTEM " ARCHITECTURE AND TECHNOLOGY DEVELOPMENT OVERVIEW

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IAEA-CN-316-2928

Materials: via Indico sever:



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

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IAEA-CN-316-2929



Materials: via Indico sever:

TOWARDS DIGITAL TWINS OF FUSION SYSTEMS

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IAEA-CN-316-2930

Materials: via Indico sever:



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

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IAEA-CN-316-2931

Materials: via Indico sever:



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

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IAEA-CN-316-2933

Materials: via Indico sever:



ANTICIPATING TRITIUM IMPACT AND TRANSFER IN FISSION AND FUSION POWERPLANTS

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IAEA-CN-316-2934

Materials: via Indico sever:



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

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IAEA-CN-316-2936

Materials: via Indico sever:



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

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IAEA-CN-316-2937

Materials: via Indico sever:



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

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IAEA-CN-316-2938

Materials: via Indico sever:



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

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IAEA-CN-316-2939

Materials: via Indico sever:



UK STEP TOWARDS A FUSION POWER PLANT PLASMA

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IAEA-CN-316-2940

Materials: via Indico sever:



Core-edge integration studies in negative triangularity in TCV

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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

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IAEA-CN-316-2949

Materials: via Indico sever:



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

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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

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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

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IAEA-CN-316-2953



Materials: via Indico sever:

Overview of CRAFT project progress

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IAEA-CN-316-2955

Materials: via Indico sever:



OVERVIEW OF ACHIEVEMENTS AND OUTLOOK OF THE IFMIF/EVEDA PROJECT

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IAEA-CN-316-2956

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2958

Materials: via Indico sever:



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

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IAEA-CN-316-2960

Materials: via Indico sever:



DEVELOPMENT OF HIGH-PERFORMANCE LONG-PULSE DISCHARGE IN KSTAR

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IAEA-CN-316-2961

Materials: via Indico sever:



ELECTRON CYCLOTRON HEATED LOW TO HIGH MODE TRANSITION IN KSTAR

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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

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IAEA-CN-316-2963

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2965

Materials: via Indico sever:



DESIGN-BASED MULTIDINENSIONAL TRITIUM TRANSPORT ANALYSIS PLATFORM FOR BLANKET SYSTEM

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IAEA-CN-316-2966

Materials: via Indico sever:



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

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IAEA-CN-316-2967

Materials: via Indico sever:



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

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IAEA-CN-316-2968

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2970

Materials: via Indico sever:



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

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IAEA-CN-316-2971

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2973



Materials: via Indico sever:

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

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IAEA-CN-316-2974

Materials: via Indico sever:



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

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IAEA-CN-316-2975

Materials: via Indico sever:



LEVERAGING TURBULENCE DATA FROM FUSION EXPERIMENTS

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IAEA-CN-316-2976

Materials: via Indico sever:



DYNAMICS OF INTERNAL RECONNECTION EVENTS IN VERSATILE EXPERIMENT SPHERICAL TORUS

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IAEA-CN-316-2977

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2980

Materials: via Indico sever:



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

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IAEA-CN-316-2981

Materials: via Indico sever:



PROGRESS OF CRAFT NEGATIVE ION SOURCE NEUTRAL BEAM INJECTION TEST FACILITY

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IAEA-CN-316-2982

Materials: via Indico sever:



Study of erosion of ceramic materials under transient thermal load

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IAEA-CN-316-2983

Materials: via Indico sever:



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

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IAEA-CN-316-2984



Materials: via Indico sever:

DESIGN AND DEVELOPMENT OF ITER VUV SPECTROMETERS WITH PROTOTYPE TESTING

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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

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IAEA-CN-316-2986

Materials: via Indico sever:



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

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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

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IAEA-CN-316-2988

Materials: via Indico sever:



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

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IAEA-CN-316-2989

Materials: via Indico sever:



Performance MT-I spherical tokamak with upgraded power supplies system

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IAEA-CN-316-2990

Materials: via Indico sever:



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

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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+

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IAEA-CN-316-2992

Materials: via Indico sever:



Characteristics of tungsten impurity sources and transport in KSTAR

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IAEA-CN-316-2993

Materials: via Indico sever:



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

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IAEA-CN-316-2994

Materials: via Indico sever:



EFFECT OF ELECTRON CYCLOTRON WAVES ON PLASMA WITH RUNAWAY ELECTRONS

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IAEA-CN-316-2996

Materials: via Indico sever:



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

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IAEA-CN-316-2997

Materials: via Indico sever:



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

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IAEA-CN-316-2998

Materials: via Indico sever:



Overview of EXL-50U Experiments: Addressing Key Physics Issues for Future Spherical Torus Reactors

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IAEA-CN-316-2999

Materials: via Indico sever:



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

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IAEA-CN-316-3000

Materials: via Indico sever:



OVERVIEW OF THE KSTAR EXPERIMENTS AND FUTURE PLAN

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IAEA-CN-316-3003

Materials: via Indico sever:



Neural network reduced models for plasma turbulence

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IAEA-CN-316-3004

Materials: via Indico sever:



Investigation of double frequency fishbone in EAST with neutral beam injection

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IAEA-CN-316-3006

Materials: via Indico sever:



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

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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

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IAEA-CN-316-3009

Materials: via Indico sever:



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

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IAEA-CN-316-3011

Materials: via Indico sever:



Progress of the EHL-2 Spherical Torus Engineering Design

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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

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IAEA-CN-316-3013

Materials: via Indico sever:



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

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IAEA-CN-316-3014

Materials: via Indico sever:



TRT PLASMA CONTROL COMPLEXES CONCEPTUAL DESIGN ON THE BASE OF THE ITER FUSION TECHNOLOGY DEVELOPMENT

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IAEA-CN-316-3015

Materials: via Indico sever:



Towards Practical Fusion Energy: Engineering Challenges and Development Strategies by the Perspective of CNPE

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IAEA-CN-316-3016

Materials: via Indico sever:



FUSION MAGNET POWER EQUIPMENT INSTALLATION DESIGN BASED ON MULTI-PHYSICS FIELD COUPLING AND MODULAR OPTIMIZATION

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IAEA-CN-316-3017

Materials: via Indico sever:



ASSESSMENT OF B₄C AS FIRST WALL COATING FOR THERMONUCLEAR REACTOR

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IAEA-CN-316-3018

Materials: via Indico sever:



FEATURES OF FUSION POWER MEASUREMENTS IN THE NEXT GENERATION MAGNETIC PLASMA CONFINEMENT EXPERIMENTS

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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

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IAEA-CN-316-3020



Materials: via Indico sever:

RADIOLOGICAL SAFETY ASSESSMENTS FOR FUSION NEUTRON SOURCE IN ENGINEERING DESIGN ACTIVITIES UNDER IFMIF/EVEDA PROJECT

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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

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IAEA-CN-316-3023



Materials: via Indico sever:

FIRST QUANTIFICATION OF VOLUME RECOMBINATION IN W7-X WITH EMC3-EIRENE

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IAEA-CN-316-3024

Materials: via Indico sever:



Investigation of high Q L-mode plasma operation sustained by enhanced pellet fueling in ITER

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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

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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

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IAEA-CN-316-3027

Materials: via Indico sever:



THEORY AND SIMULATION OF PHASE SPACE TRANSPORT IN BURNING PLASMAS

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IAEA-CN-316-3028

Materials: via Indico sever:



DEVELOPING MACHINE LEARNING FACILITATED PEDESTAL MODELS

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IAEA-CN-316-3029

Materials: via Indico sever:



Technologies of high voltage neutral beam injectors for magnetic fusion devices

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IAEA-CN-316-3030

Materials: via Indico sever:



Coupling of Geodesic Acoustic Modes and Resonant Magnetic Perturbations in Fusion Plasmas

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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

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IAEA-CN-316-3032

Materials: via Indico sever:



New insights on the quasicohherent mode in EDA high confinement discharges

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IAEA-CN-316-3033

Materials: via Indico sever:



MACHINE LEARNING AIDED NEUTRON YIELD FOR DUD DETECTION BASED ON JET AND TFTR DEUTERIUM-TRITIUM PLASMAS

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IAEA-CN-316-3035

Materials: via Indico sever:



PLASMA CONTROL EXPERIMENTS IN JET DEUTERIUM-TRITIUM PLASMAS

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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

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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

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IAEA-CN-316-3043



Materials: via Indico sever:

IMPACT OF TRANSIENT HEAT LOADS ON THE DETACHED MAST UPGRADE SUPER-X DIVERTOR

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IAEA-CN-316-3044

Materials: via Indico sever:



3D hybrid fluid-kinetic simulations of large scale plasma instabilities in runaway electron beams

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IAEA-CN-316-3045

Materials: via Indico sever:



SURROGATE MODEL FOR TURBULENT TRANSPORT USING DEEP LEARNING AND PLASMA PROFILE PREDICTION IN TOKAMAK PLASMAS

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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

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IAEA-CN-316-3047

Materials: via Indico sever:



EXHAUST OPERATIONAL SPACE ASSESSMENT FOR THE EUROPEAN VOLUMETRIC NEUTRON SOURCE (EU-VNS)

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IAEA-CN-316-3048

Materials: via Indico sever:



WEST advanced wall protection achievements toward long pulse operation

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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

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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

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IAEA-CN-316-3051

Materials: via Indico sever:



Overview of ASDEX Upgrade results

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IAEA-CN-316-3052

Materials: via Indico sever:



Fusion research and development strategy for JA DEMO investigated in QST

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IAEA-CN-316-3053

Materials: via Indico sever:



FEASIBILITY STUDY OF TUNGSTEN-WATER/AIR REACTION IN DEMO CONDITIONS

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IAEA-CN-316-3054

Materials: via Indico sever:



STEP: Driving a pathway to accelerated fusion delivery

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IAEA-CN-316-3055

Materials: via Indico sever:



FUSION ALPHA-PARTICLE-DRIVEN ALFVEN EIGENMODES IN JET DT PLASMAS: EXPERIMENTS AND THEORY

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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

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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

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IAEA-CN-316-3059

Materials: via Indico sever:



Experimental observations of magnetohydrodynamic instabilities in HL-3 low-current high- \hat{I}^2N plasmas

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IAEA-CN-316-3060

Materials: via Indico sever:



OBSERVATION OF HIGH-FREQUENCY OSCILLATIONS IN THE TUMAN-3M OHMIC PLASMAS

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IAEA-CN-316-3061

Materials: via Indico sever:



FIRST EXPERIMENTAL OBSERVATION OF “STAIRCASE” HIGH CONFINEMENT MODE IN TOKAMAK PLASMA

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IAEA-CN-316-3063

Materials: via Indico sever:



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

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IAEA-CN-316-3065

Materials: via Indico sever:



Foams as a Pathway to Energy from Inertial Fusion (FoPIFE): overview of recent results

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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

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IAEA-CN-316-3067

Materials: via Indico sever:



Application of a Design Structure Matrix Methodology to STEP Plasma Control System Design and Sensor Optimisation

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IAEA-CN-316-3068

Materials: via Indico sever:



Overview of the DONES Experimental Programme

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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

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IAEA-CN-316-3070

Materials: via Indico sever:



WEST wall conditioning with boron: lessons for ITER and fusion power plants

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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

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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

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IAEA-CN-316-3074

Materials: via Indico sever:



RUNAWAY ELECTRONS IN JET " SUMMARY ON RE DATA AFTER THE END OF JET OPERATIONS

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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

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IAEA-CN-316-3076

Materials: via Indico sever:



EXPERIMENTAL RESEARCH ON MAGNETOHYDRODYNAMIC (MHD) FLOWS IN LIQUID METAL COOLING SYSTEMS FOR FUSION REACTORS

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IAEA-CN-316-3084



Materials: via Indico sever:

Attaining Tokamak level performance through plasma density profile shaping at Wendelstein 7-X

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IAEA-CN-316-3085

Materials: via Indico sever:



The physics basis for implementing Alternative Divertor Configurations on reactors

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IAEA-CN-316-3088

Materials: via Indico sever:



Tokamak formation via localized helicity injection using tangential boundary flows

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IAEA-CN-316-3091

Materials: via Indico sever:



FIRST EDGE-LOCALIZED MODE SUPPRESSION WITH LOWER HYBRID WAVES ON THE EAST TOKAMAK

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IAEA-CN-316-3095

Materials: via Indico sever:



NONLOCAL BEHAVIOR OF TURBULENCE IN THE PRESENCE OF POLOIDALLY LOCALIZED HEAT SOURCE

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IAEA-CN-316-3096

Materials: via Indico sever:



ICRF ANTENNA DESIGN FOR THE HL-3 TOKAMAK

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IAEA-CN-316-3098

Materials: via Indico sever:



Design studies on advanced self-cooled liquid test blanket modules for JA-DEMO

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IAEA-CN-316-3100

Materials: via Indico sever:



Progress of Research on the KTX Reversed Field Pinch

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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

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IAEA-CN-316-3102

Materials: via Indico sever:



NEW UNDERSTANDING OF RESONANT LAYER RESPONSE VIA EXTENDED DRIFT MHD

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IAEA-CN-316-3103

Materials: via Indico sever:



REGULATORY FRAMEWORK TOWARDS FUSION ENERGY IN GERMANY

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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

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IAEA-CN-316-3105

Materials: via Indico sever:



Dynamic Evolution of Pellet Fueling from Ablation Cloud to Reheat Mode in Heliotron J

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IAEA-CN-316-3107

Materials: via Indico sever:



NONLINEAR MAGNETOHYDRODYNAMIC MODELLING OF IDEAL BALLOONING MODES IN HIGH-BETA WENDELSTEIN 7-X PLASMAS

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IAEA-CN-316-3108

Materials: via Indico sever:



EFFECTS OF ZONAL FIELDS ON ENERGETIC-PARTICLE EXCITATIONS OF REVERSED-SHEAR ALFVÄN EIGENMODES

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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

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IAEA-CN-316-3110

Materials: via Indico sever:



Progress of Proton-Boron Research for Fusion Energy in China

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IAEA-CN-316-3111

Materials: via Indico sever:



A COMPREHENSIVE DESIGN OF THE UPPER PORT #18 INTERSPACE SUPPORT STRUCTURE FOR THE ITER DIAGNOSTIC PORT

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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

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IAEA-CN-316-3114

Materials: via Indico sever:



OPERATIONAL SPACE OF SMALL ELM AND ELM-FREE REGIMES ON HL-3 TOKAMAK

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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

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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

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IAEA-CN-316-3117

Materials: via Indico sever:



Pressure gradient driven core-localized electromagnetic instability in the plasma with a weak magnetic shear on HL-2A tokamak

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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

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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

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IAEA-CN-316-3124

Materials: via Indico sever:



THE IMPURITY BEHAVIORS AND TRANSPORT ANALYSIS OF HL-2A AND HL-3 PLASMAS

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IAEA-CN-316-3125

Materials: via Indico sever:



Progress in the concept development of the VNS - a beam-driven tokamak for component testing

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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

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IAEA-CN-316-3127



Materials: via Indico sever:

Towards a Stellarator Fusion Reactor: Achievements of the European Stellarator Program

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IAEA-CN-316-3128

Materials: via Indico sever:



HELIUM ASH REMOVAL: COMPREHENSIVE EFFECTS OF ALPHA PARTICLES ON THE SOURCE AND TRANSPORT OF HELIUM ASH

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IAEA-CN-316-3130

Materials: via Indico sever:



THREE-DIMENSIONAL NONLINEAR MODELING OF ELM DYNAMICS WITH BIASING IN THE HL-3 TOKAMAK

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IAEA-CN-316-3131

Materials: via Indico sever:



Simulations of the interactions between ELMs and edge turbulences on fusion reactor scale facilities

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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

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IAEA-CN-316-3135

Materials: via Indico sever:



Engineering Design, Construction, and Flexible Control of Magnetic Field Configuration of Quasi-axisymmetric Stellarator CFQS-T

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IAEA-CN-316-3136

Materials: via Indico sever:



ION AND ELECTRON HEATING VIA MAGNETIC RECONNECTION DURING MERGING/COMPRESSION PLASMA STARTUP IN ST40

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IAEA-CN-316-3137

Materials: via Indico sever:



CHARACTERISTICS OF HIGH FREQUENCY TURBULENCE DURING EDGE LOCALIZED MODES IN THE HL-2A TOKAMAK

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IAEA-CN-316-3138



Materials: via Indico sever:

FAST ION TRANSPORT INDUCED BY EDGE LOCALIZED MODES

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IAEA-CN-316-3139

Materials: via Indico sever:



DISRUPTION PREDICTION FOR FUTURE TOKAMAK REACTORS FROM DIFFERENT PERSPECTIVES AND WITH DIFFERENT METHODS

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IAEA-CN-316-3140



Materials: via Indico sever:

Impact of the Plasma Boundary on Machine Operation, and the Risk Mitigation Strategy on JET

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IAEA-CN-316-3141

Materials: via Indico sever:



T-15MD: MISSION AND RECENT EXPERIMENTAL RESULTS

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IAEA-CN-316-3142

Materials: via Indico sever:



FDTD SIMULATION OF THE PROPAGATION CHARACTERISTICS OF MILLIMETER-WAVE VORTEX IN MAGNETIZED PLASMA

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IAEA-CN-316-3143

Materials: via Indico sever:



THE 2024 NEW BASELINE ITER RESEARCH PLAN

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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

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IAEA-CN-316-3145

Materials: via Indico sever:



DEVELOPMENT OF METER-SCALE LARGE W/CU DIVERTOR COMPONENTS FOR FUSION REACTOR AT ASIPP

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IAEA-CN-316-3146

Materials: via Indico sever:



PROGRESS OF LOWER HYBRID CURRENT DRIVE EXPERIMENT TOWARDS LONG-PULSE OPERATION ON EAST

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IAEA-CN-316-3147

Materials: via Indico sever:



ESTABLISHING AFRICAN FUSION ENERGY RESEARCH CONSORTIUM: CAPACITY BUILDING AND INNOVATION PATHWAY

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IAEA-CN-316-3149



Materials: via Indico sever:

DEVELOPMENT AND FUTURE PLAN OF THE NEGATIVE HYDROGEN ION SOURCES FOR NBI AT SWIP

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IAEA-CN-316-3150

Materials: via Indico sever:



EXTRACTING THE NEAREST CANONICAL EQUILIBRIUM DISTRIBUTION VIA NATURAL GRADIENT DESCENT METHOD

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IAEA-CN-316-3151



Materials: via Indico sever:

Recent Experiments and Development of LHCD system on HL-3

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IAEA-CN-316-3152

Materials: via Indico sever:



A Physics-Informed Neural Network for Real-Time, Data-Efficient Plasma Equilibrium Reconstruction in SUNIST-2

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IAEA-CN-316-3153

Materials: via Indico sever:



OVERVIEW OF RECENT RESULTS IN RESEARCH TACKLING REMOTE MAINTENANCE CHALLENGES OF FUTURE FUSION ENERGY DEVICES

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IAEA-CN-316-3154

Materials: via Indico sever:



Preliminary design and development of neutron activation system on CN HCCB TBS

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IAEA-CN-316-3156

Materials: via Indico sever:



A New Eigenvalue Solver for Electrostatic Drift-Wave Instabilities in Tokamaks

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IAEA-CN-316-3158

Materials: via Indico sever:



MITIGATION OF ELM BY 3D MAGNETIC PERTURBATIONS IN HL-3/HL-2A TOKAMAKS

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IAEA-CN-316-3160

Materials: via Indico sever:



Investigation of transient transport dynamics induced by compact torus injection in the EAST tokamak

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IAEA-CN-316-3161

Materials: via Indico sever:



VALIDATION OF PLASMA -WALL SELF-ORGANIZATION THEORY BY HIGH DENSITY LIMITS ACHIEVED ON EAST

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IAEA-CN-316-3162

Materials: via Indico sever:



LOW-THRESHOLD ABSOLUTE PARAMETRIC DECAY INSTABILITY IN X2-MODE ECRH EXPERIMENTS AND THE MISSING POWER EFFECT

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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

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IAEA-CN-316-3166

Materials: via Indico sever:



DECODING THE CAUSES OF HIGH-DENSITY DISRUPTION THROUGH INTERPRETABLE MACHINE LEARNING

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IAEA-CN-316-3167

Materials: via Indico sever:



Conceptual Design Study for Downsizing of Fusion DEMO Reactor

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IAEA-CN-316-3169

Materials: via Indico sever:



SAWTEETH DYNAMICS IN JT-60SA BASELINE SCENARIOS WITH EFFECTS ON NTM ONSET

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IAEA-CN-316-3171

Materials: via Indico sever:



ENHANCED SURGE PROTECTIONS FOR DC ULTRA-HIGH VOLTAGE POWER SUPPLY FOR ITER NBI

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IAEA-CN-316-3177

Materials: via Indico sever:



AUGMENTING THE EXTRAPOLATION CAPABILITY OF DISRUPTION PREDICTION TO EXTENDED PARAMETER REGIMES BY PREDICT-FIRST NEURAL NETWORK

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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

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IAEA-CN-316-3179

Materials: via Indico sever:



Drift flows impact island divertor operation in Wendelstein 7-X

Carsten Killer

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IAEA-CN-316-3182

Materials: via Indico sever:



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

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IAEA-CN-316-3183

Materials: via Indico sever:



Radiation shielding analysis of IFMIF-DONES Test Cell and adjacent rooms

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IAEA-CN-316-3190

Materials: via Indico sever:



Kinetic modeling of tungsten transport induced by low-n X-point mode

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IAEA-CN-316-3192

Materials: via Indico sever:



SIMULATION OF DEUTERIUM-TRITIUM ISOTOPE EFFECTS ON THE DIVERTOR TARGET HEAT FLUX DENSITY IN CFEDR

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IAEA-CN-316-3193

Materials: via Indico sever:



R&D on W First Wall for ITER and Future Fusion Reactors

Jiming Chen

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IAEA-CN-316-3194

Materials: via Indico sever:



SIMULATING ENERGETIC PARTICLE DYNAMICS USING OPERATOR NEURAL NETWORKS WITH SPATIAL TRANSLATION INVARIANCE

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IAEA-CN-316-3195

Materials: via Indico sever:



Completion of Manufacturing and Testing of 8 ITER Gyrotrons with its Auxiliary Systems

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IAEA-CN-316-3197

Materials: via Indico sever:



Realization of direct internal recycling for DEMO fuel cycle based on a novel cryopump configuration

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IAEA-CN-316-3198

Materials: via Indico sever:



Experimental studies on the effect of turbulence-driven edge poloidal shear flow on tokamak plasma confinement

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IAEA-CN-316-3199

Materials: via Indico sever:



Structural Design of the Negative Triangularity Spherical Tokamak (NTST)

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IAEA-CN-316-3200

Materials: via Indico sever:



PROGRESS ON THE ENGINEERING QUALIFICATION OF CN-RAFM STEEL

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IAEA-CN-316-3201

Materials: via Indico sever:



Fast ion transport in presence of magnetic perturbations using full-orbit and guiding-center simulations

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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

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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

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IAEA-CN-316-3204

Materials: via Indico sever:



Magnetic flux surface mapping system at Chinese First Quasi-axisymmetric Stellarator

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IAEA-CN-316-3205

Materials: via Indico sever:



Linear and quasi-linear toroidal modeling of resonant magnetic perturbations during ELMs mitigation in HL-3

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IAEA-CN-316-3206

Materials: via Indico sever:



NATURAL SMALL ELMS ACHIEVED AT LOW PEDESTAL COLLISIONALITY (<1) IN A METAL WALL ENVIRONMENT ON EAST

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IAEA-CN-316-3207



Materials: via Indico sever:

INFERNAL-KINK INSTABILITY IN NEGATIVE-TRIANGULARITY PLASMAS WITH NEGATIVE CENTRAL SHEAR

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IAEA-CN-316-3208

Materials: via Indico sever:



PROGRESS ON REAL-TIME DENSITY CONTROL CAPABILITY OF THE KSTAR TOKAMAK

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IAEA-CN-316-3209

Materials: via Indico sever:



Ion Doppler Spectroscopy System on the SUNIST-2 Spherical Tokamak

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IAEA-CN-316-3210

Materials: via Indico sever:



DYNAMICS OF TURBULENCE AND ZONAL FLOWS EFFECTED BY TUNGSTEN IMPURITY IN HL-2A EDGE PLASMAS

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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

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IAEA-CN-316-3212

Materials: via Indico sever:



IN-SITU CALIBRATION OF NEUTRON FLUX MONITOR FOR HL-3 TOKAMAK

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IAEA-CN-316-3213

Materials: via Indico sever:



Self-Organized FRC Formation in Mirror Field Orthogonal to the Axis of Counter-Injected Plasmoids

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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

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IAEA-CN-316-3215

Materials: via Indico sever:



TUNGSTEN DUST TRANSPORT IN THE STOR-M TOKAMAK

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IAEA-CN-316-3218

Materials: via Indico sever:



High Intensity Neutron Source for Fusion Nuclear Technology Development

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IAEA-CN-316-3219

Materials: via Indico sever:



Transport properties of trapped-electron-mode turbulence interacting with tearing modes in tokamak plasmas

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IAEA-CN-316-3221

Materials: via Indico sever:



Design and Testing of Quench Protection System for ITER Magnet Cold Test Bench

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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

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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

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IAEA-CN-316-3226



Materials: via Indico sever:

NOVEL EFFECTS OF EDGE-LOCALISED RMPS AND PLASMA DENSITY ON THE L-H TRANSITIONS AND TURBULENCE

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IAEA-CN-316-3227

Materials: via Indico sever:



SIMULATION OF HEAT EXCHANGER TUBE RUPTURE ACCIDENT FOR CN HCCB TBS

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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

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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**

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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

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IAEA-CN-316-3236

Materials: via Indico sever:



DESIGN AND CHALLENGE FOR ITER DIVERTOR LANGMUIR PROBE

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IAEA-CN-316-3239

Materials: via Indico sever:



Next-Generation Coil Power Supply System for the Tokamak: Design, Implementation, and Operational Performance

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IAEA-CN-316-3240

Materials: via Indico sever:



Validated, global edge-SOL turbulence simulations in various ELM-free regimes

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IAEA-CN-316-3241

Materials: via Indico sever:



COMMISSIONING OF THE CHINESE LARGEST SUPERCONDUCTING HIGH-FLUX LINEAR PLASMA DEVICE SWORD

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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

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IAEA-CN-316-3249

Materials: via Indico sever:



Kinetic modeling of interactions among drift-Alfven instability, continuous spectrum and energetic particle in fusion experiments

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IAEA-CN-316-3252

Materials: via Indico sever:



Reinforcement Learning-Based Plasma Shape Control via Isoflux scheme on superconductor tokamak

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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

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IAEA-CN-316-3256

Materials: via Indico sever:



Overview of Wendelstein 7-X high-performance operation

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IAEA-CN-316-3257

Materials: via Indico sever:



HL-3 RESEARCH TOWARDS HIGH-PERFORMANCE PLASMA AND POWER EXHAUST SOLUTION

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IAEA-CN-316-3258

Materials: via Indico sever:



The role of ambient turbulence in facilitating thermal quench of disruptive plasmas in HL-2A tokamak

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IAEA-CN-316-3259

Materials: via Indico sever:



SIMULATION OF EFFECT OF POLOIDAL INJECTION GEOMETRY ON LI-PELLET TRIGGERED ELM UNDER BOUT++ FRAMEWORK

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IAEA-CN-316-3261

Materials: via Indico sever:



Theoretical Model for the Experimentally Observed GAMs Satellites

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IAEA-CN-316-3263

Materials: via Indico sever:



AVERAGE MAGNETIC DRIFT MODEL FOR ION TEMPERATURE GRADIENT DRIVEN INSTABILITY IN TOKAMAKS

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IAEA-CN-316-3264

Materials: via Indico sever:



EFFECT OF IMPURITY DISTRIBUTION ON THE STABILITY OF NEOCLASSICAL TEARING MODE

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IAEA-CN-316-3267

Materials: via Indico sever:



Nonlinear Self-Consistent Dynamics of Geodesic Acoustic Modes and Zonal Flows in Toroidally Rotating Tokamak Plasmas

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IAEA-CN-316-3268

Materials: via Indico sever:



Alpha particle generation and confinement in D-3He scenarios in JT-60SA

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IAEA-CN-316-3269

Materials: via Indico sever:



CHARACTERISTICS OF EDGE QUASI-COHERENT MODE IN THE EDA H-MODE ON HL-3

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IAEA-CN-316-3271

Materials: via Indico sever:



Plasma Instability Events Detection and Disruption Prediction in EAST Tokamak via Heterogeneous-Feature Multi-Task Learning

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IAEA-CN-316-3276

Materials: via Indico sever:



Evaluating economic, environmental, and social impacts of adopting fusion energy in Saudi Arabia

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IAEA-CN-316-3277

Materials: via Indico sever:



Remote Handling Strategy of Volumetric Neutron Source Blanket

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IAEA-CN-316-3278

Materials: via Indico sever:



Force-electric coupling characteristics of CORC cables under bending load

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IAEA-CN-316-3279

Materials: via Indico sever:



ANALYSIS AND SIMULATION OF EFFECTIVE RUNAWAY ELECTRON MITIGATION USING A PASSIVE COIL IN J-TEXT TOKAMAK

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IAEA-CN-316-3281

Materials: via Indico sever:



Development of ITER Divertor Outer Vertical Target

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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

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IAEA-CN-316-3286

Materials: via Indico sever:



THE RADIATIVE DIVERTOR AND IN/OUT ASYMMETRY IN HL-2M BY IMPURITY SEEDING WITH FULL DRIFTS

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IAEA-CN-316-3288

Materials: via Indico sever:



Simulation study of the effect of impurities on the nonlinear dynamic process of Edge-Localized-Modes

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IAEA-CN-316-3292

Materials: via Indico sever:



Experimental and Numerical Research on High-Temperature Superconducting Demountable Joints for Toroidal Field Coils of Tokamaks

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IAEA-CN-316-3294

Materials: via Indico sever:



CLUSTER DYNAMICS MODELING OF DEFECT EVOLUTION IN NEUTRON-IRRADIATED TUNGSTEN FOR FUSION APPLICATIONS

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IAEA-CN-316-3295

Materials: via Indico sever:



DEUTERIUM GAS-DRIVEN PERMEATION AND RETENTION IN LA₂O₃, Y₂O₃, AND ZRO₂ DISPERSION-STRENGTHENED TUNGSTEN

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IAEA-CN-316-3296

Materials: via Indico sever:



Experimental research on the penetration behavior of compact toroid fueling on EAST

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IAEA-CN-316-3297

Materials: via Indico sever:



A Novel High-Temperature Superconducting Cable Design for Compact Tokamaks

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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

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IAEA-CN-316-3304

Materials: via Indico sever:



IMPACT OF NEUTRAL PARTICLES ON BEAM-ION LOSSES IN EAST TOKAMAK

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IAEA-CN-316-3307

Materials: via Indico sever:



Tungsten limiter Start-up experiments in different boronization states in support of ITER

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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

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IAEA-CN-316-3309

Materials: via Indico sever:



EXPERIMENTAL STUDY ON THE MIGRATION PROCESS OF ADATOM IN THE GROWTH DYNAMIC OF FUZZ

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IAEA-CN-316-3312

Materials: via Indico sever:



DEVELOPMENT OF A THREE-DIMENSIONAL SIMULATION CODE FOR SCRAPE-OFF LAYER PLASMAS

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IAEA-CN-316-3313

Materials: via Indico sever:



Experimental and Simulation Study of Plasma Detachment in the Linear Plasma Device MPS-LD

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IAEA-CN-316-3314

Materials: via Indico sever:



ACCESSING STABLE OPERATIONAL WINDOWS IN K-DEMO

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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

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IAEA-CN-316-3316

Materials: via Indico sever:



Experimental observation of zonal flow-like oscillation in Chinese first quasi-axisymmetric stellarator-test device

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IAEA-CN-316-3317

Materials: via Indico sever:



CERMET ALLOYS FOR HYBRID FISSION-FUSION NUCLEAR REACTOR

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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

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IAEA-CN-316-3319

Materials: via Indico sever:



ADVANCES IN PHYSICS AND APPLICATIONS OF 3D MAGNETIC PERTURBATIONS ON THE J-TEXT TOKAMAK

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IAEA-CN-316-3321

Materials: via Indico sever:



TEMO: a comprehensive and versatile equilibrium modelling toolbox for tokamak operations

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IAEA-CN-316-3322

Materials: via Indico sever:



THE DIVERTOR TOKAMAK TEST FACILITY RESEARCH PLAN

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IAEA-CN-316-3323

Materials: via Indico sever:



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

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IAEA-CN-316-3326

Materials: via Indico sever:



RECENT PROGRESS ON THE SUNIST-2 SPHERICAL TOKAMAK

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IAEA-CN-316-3327

Materials: via Indico sever:



INNOVATIVE AND EFFICIENT PLASMA MAGNETIC CONFINEMENT METHOD BASED ON AN OVERLOOKED HISTORICAL DISCOVERY

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IAEA-CN-316-3329

Materials: via Indico sever:



A novel method to optimize omnigenity like quasisymmetry for stellarators

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IAEA-CN-316-3330

Materials: via Indico sever:



Insights from fast-ion physics studies on JET in support of JT-60SA and ITER rebaseline

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IAEA-CN-316-3333

Materials: via Indico sever:



NTST, A NEGATIVE TRIANGULARITY SPHERICAL TOKAMAK

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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**

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IAEA-CN-316-3336

Materials: via Indico sever:



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

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IAEA-CN-316-3337

Materials: via Indico sever:



SIMULATION OF FUEL INVENTORY IN DAMAGED TUNGSTEN UNDER SIMULTANEOUS HYDROGEN AND DEUTERIUM: SYNERGISTICAL EFFECT OF DEFECT ANNEALING AND ISOTOPE EXCHANGE

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IAEA-CN-316-3338

Materials: via Indico sever:



ENERGETIC PARTICLE DISTRIBUTIONS FOR QUANTITATIVE CALCULATIONS OF BURNING PLASMA STABILITY

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IAEA-CN-316-3339



Materials: via Indico sever:

Tokamak Energy's high temperature superconducting magnet spherical tokamak fusion pilot plant concept

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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

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IAEA-CN-316-3342



Materials: via Indico sever:

PLASMA CURRENT AND POSITION CONTROL IN KTM TOKAMAK

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IAEA-CN-316-3344

Materials: via Indico sever:



Non-inductive high-performance discharges on TCV on the path to steady state

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IAEA-CN-316-3345

Materials: via Indico sever:



CONTROLLED NUCLEAR FUSION FOR THE ENERGY TRANSITION, HEALTH, AND INDUSTRY

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IAEA-CN-316-3346

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**

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IAEA-CN-316-3348



Materials: via Indico sever:

Challenges and Achievements in IFMIF-DONES Neutronics Activities

Yuefeng Qiu

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IAEA-CN-316-3350

Materials: via Indico sever:



PLASMA PREDICTION AND SIMULATION IN SUPPORT OF REACTOR DESIGN AND OPERATION AT TOKAMAK ENERGY

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IAEA-CN-316-3351



Materials: via Indico sever:

The physics of ELM-free regimes in EUROfusion tokamaks

Michael Dunne

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IAEA-CN-316-3354

Materials: via Indico sever:



BOUT++ SIMULATION STUDY OF THE EFFECT OF RESONANT MAGNETIC PERTURBATION ON THE TURBULENCE TRANSPORT

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IAEA-CN-316-3356

Materials: via Indico sever:



Fusion-relevant tritium interactions with SS316L stainless steel

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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

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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

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IAEA-CN-316-3359

Materials: via Indico sever:



Establishment and Progress of Korean Fusion Reactor Design Activities: A Coordinated National Approach

Jae-Min Kwon

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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

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IAEA-CN-316-3364

Materials: via Indico sever:



HIGH-HEAT-FLUX PERFORMANCE OF MONOBLOCK TARGET PREPARED WITH ADVANCED W-K PLATE

Fan Feng

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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

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IAEA-CN-316-3366

Materials: via Indico sever:



ITER Core Machine Assembly Progress

Jens Reich

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IAEA-CN-316-3368

Materials: via Indico sever:



PHYSICAL MODEL FOR TESTING STRUCTURAL MATERIALS OF FUSION REACTORS UNDER PLASMA AND THERMAL IMPACT

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IAEA-CN-316-3370

Materials: via Indico sever:



OVERALL PERFORMANCE OF THE HOUR-LEVEL ALTERNATING HYBRID INTEGRATOR

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Opto-Electronics Engineering, Hefei University of Technology), China*

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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

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IAEA-CN-316-3372

Materials: via Indico sever:



CFETR NEUTRONICS BENCHMARK CROSSCHECKING USING JMCT

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IAEA-CN-316-3376

Materials: via Indico sever:



Safety Regulation of Fusion Facilities in the Russian Federation

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IAEA-CN-316-3378

Materials: via Indico sever:



RECENT ADVANCES OF WATER DETRITIATION TECHONOLOGIES

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Corresponding Author: Jinguang Cai, *JinguangCai* < *caijinguang@foxmail.com* >

IAEA-CN-316-3379

Materials: via Indico sever:



[OV POSTER TWIN] Overview of CRAFT project progress

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

IAEA-CN-316-3380

Materials: via Indico sever:



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

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IAEA-CN-316-3381

Materials: via Indico sever:



[OV POSTER TWIN] FIRST JT-60SA PLASMA OPERATION AND PLANS IN VIEW OF ITER AND DEMO

Jeronimo Garcia

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

IAEA-CN-316-3383

Materials: via Indico sever:



[OV POSTER TWIN] RECENT ADVANCES IN PLASMA CONTROL AND PHYSICS RESEARCH IN THE LARGE HELICAL DEVICE

Kenji Tanaka

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IAEA-CN-316-3384



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

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IAEA-CN-316-3385

Materials: via Indico sever:



[OV POSTER TWIN] Strategic plan to demonstrate heatwave-driven laser fusion with fast ignition scheme

Yasuhiko Sentoku

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IAEA-CN-316-3386

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

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IAEA-CN-316-3387

Materials: via Indico sever:



[OV POSTER TWIN] Progress and innovations in the TCV tokamak research programme

Christian Theiler

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IAEA-CN-316-3388

Materials: via Indico sever:



[OV POSTER TWIN] Recent advances at the Globus-M2 tokamak

Nikolai Bakharev

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IAEA-CN-316-3389

Materials: via Indico sever:



[OV POSTER TWIN] TOWARDS DIGITAL TWINS OF FUSION SYSTEMS

Frank Jenko

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IAEA-CN-316-3390

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF ACHIEVEMENTS AND OUTLOOK OF THE IFMIF/EVEDA PROJECT

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IAEA-CN-316-3391

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF THE KSTAR EXPERIMENTS AND FUTURE PLAN

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IAEA-CN-316-3392

Materials: via Indico sever:



[OV POSTER TWIN] Overview of ASDEX Upgrade results

Thomas Püchter

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IAEA-CN-316-3393

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF UKAEA'S INTEGRATED FUSION TECHNOLOGY PROGRAMMES, EMPHASISING A DIGITAL FIRST STRATEGY

Rachel Lawless

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IAEA-CN-316-3394



Materials: via Indico sever:

[OV POSTER TWIN] Overview of the DONES Experimental Programme

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IAEA-CN-316-3395

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF WEST CONTRIBUTIONS TO THE NEW ITER BASELINE AND FUSION POWER PLANTS

Jerome Bucalossi

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IAEA-CN-316-3397

Materials: via Indico sever:



[OV POSTER TWIN] Overview of Wendelstein 7-X high-performance operation

Olaf Grulke

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IAEA-CN-316-3399

Materials: via Indico sever:



[OV POSTER TWIN] OVERVIEW OF RECENT EXPERIMENTAL RESULTS ON EAST IN SUPPORT OF ITER NEW RESEARCH PLAN

Xianzu Gong

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IAEA-CN-316-3400



Materials: via Indico sever:

[OV POSTER TWIN] OVERVIEW OF ST40 RESULTS AND FUTURE: EXPANDING THE PHYSICS BASIS OF HIGH-FIELD SPHERICAL TOKAMAKS

Otto Asunta

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IAEA-CN-316-3401

Materials: via Indico sever:



[OV POSTER TWIN] HL-3 RESEARCH TOWARDS HIGH-PERFORMANCE PLASMA AND POWER EXHAUST SOLUTION

Wulyu Zhong

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IAEA-CN-316-3403

Materials: via Indico sever:



NON-EVAPORABLE GETTER APPLICATION IN FUSION REACTORS

Jie Wang

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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

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IAEA-CN-316-3405

Materials: via Indico sever:



[REGULAR POSTER TWIN] RECOVERY OF ITER SECTOR MODULES FROM CRITICAL ISSUES

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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

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IAEA-CN-316-3407



Materials: via Indico sever:

[REGULAR POSTER TWIN] THE 2024 NEW BASELINE ITER RESEARCH PLAN

Siwoo Yoon

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IAEA-CN-316-3408

Materials: via Indico sever:



[REGULAR POSTER TWIN] ITER Core Machine Assembly Progress

Jens Reich

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IAEA-CN-316-3409

Materials: via Indico sever:



[REGULAR POSTER TWIN] Hierarchy of turbulent transport models with the SOLEDGE3X code

Hugo Bufferand

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IAEA-CN-316-3411

Materials: via Indico sever:



[REGULAR POSTER TWIN] The physics basis for implementing Alternative Divertor Configurations on reactors

Kevin Verhaegh

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IAEA-CN-316-3413

Materials: via Indico sever:



[REGULAR POSTER TWIN] Validated, global edge-SOL turbulence simulations in various ELM-free regimes

Wladimir Zholobenko

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IAEA-CN-316-3414

Materials: via Indico sever:



[REGULAR POSTER TWIN] Integrated Modelling activities in support of the ITER re-baseline

Mireille SCHNEIDER

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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

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IAEA-CN-316-3416

Materials: via Indico sever:



[REGULAR POSTER TWIN] The physics of ELM-free regimes in EUROfusion tokamaks

Michael Dunne

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IAEA-CN-316-3419

Materials: via Indico sever:



[REGULAR POSTER TWIN] WEST LONG-PULSE ACHIEVEMENTS IN SUPPORT OF NEXT-STEP FUSION DEVICES

Remi Dumont

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IAEA-CN-316-3420

Materials: via Indico sever:



[REGULAR POSTER TWIN] DEVELOPMENT OF HIGH-PERFORMANCE LONG-PULSE DISCHARGE IN KSTAR

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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

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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**

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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

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IAEA-CN-316-3425

Materials: via Indico sever:



[REGULAR POSTER TWIN] DEVELOPMENT OF INNOVATIVE REPEATABLE POWER LASER FOR LASER FUSION

Jumpei Ogino

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IAEA-CN-316-3426

Materials: via Indico sever:



[REGULAR POSTER TWIN] HIGH GAIN FUSION BURNING IN INERTIAL CONFINEMENT FUSION PLASMA

Yasunobu Arikawa

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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

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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

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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

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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

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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

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IAEA-CN-316-3437

Materials: via Indico sever:



[REGULAR POSTER TWIN] NEW UNDERSTANDING OF RESONANT LAYER RESPONSE VIA EXTENDED DRIFT MHD

Jong Kyu Park

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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

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IAEA-CN-316-3441

Materials: via Indico sever:



[REGULAR TWIN POSTER] Modelling divertor solutions for power exhaust: in-depth experimental validation in TCV

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IAEA-CN-316-3442

Materials: via Indico sever:



[REGULAR TWIN POSTER] Drift flows impact island divertor operation in Wendelstein 7-X

Carsten Killer

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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

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IAEA-CN-316-3446

Materials: via Indico sever:



[REGULAR TWIN POSTER] THE DIVERTOR TOKAMAK TEST FACILITY: MACHINE DESIGN, CONSTRUCTION AND COMMISSIONING

Gian Mario Polli

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IAEA-CN-316-3447

Materials: via Indico sever:



[REGULAR TWIN POSTER] WEST OPERATION â"RELIABILITY AND AVAILABILITY OF A LONG PULSE FUSION TOKAMAK

Valerie LAMAISSON

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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

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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

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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**

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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

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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

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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

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IAEA-CN-316-3459

Materials: via Indico sever:



[REGULAR TWIN POSTER] ITER DISRUPTION MITIGATION SYSTEM DESIGN AND APPLICATION STRATEGY

Stefan Jachmich

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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

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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

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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

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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

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IAEA-CN-316-3466

Materials: via Indico sever:



[REGULAR TWIN POSTER] PLASMA CONTROL EXPERIMENTS IN JET DEUTERIUM-TRITIUM PLASMAS

Matteo Baruzzo

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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

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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

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IAEA-CN-316-3470

Materials: via Indico sever:



[REGULAR TWIN POSTER] THEORY AND SIMULATION OF PHASE SPACE TRANSPORT IN BURNING PLASMAS

Fulvio Zonca

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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

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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

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IAEA-CN-316-3474

Materials: via Indico sever:



[REGULAR TWIN POSTER] Hybrid kinetic-MHD studies of runaway electron beam termination events

Hannes Bergström

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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

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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

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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

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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

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IAEA-CN-316-3479

Materials: via Indico sever:



[REGULAR TWIN POSTER] ANTICIPATING TRITIUM IMPACT AND TRANSFER IN FISSION AND FUSION POWERPLANTS

Elodie Bernard

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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_2TlO_3 PEBBLES AS TRITIUM
BREEDER THROUGH INTERNATIONAL COLLABORATION
BETWEEN KOREA AND CHINA**

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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IAEA-CN-316-3503

Materials: via Indico sever:



[REGULAR TWIN POSTER] Towards a Stellarator Fusion Reactor: Achievements of the European Stellarator Program

Felix Warmer

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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

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Corresponding Author: JAE MIN Kwon, *JAEMINKwon* <*jmkwon74@kfe.re.kr*>

IAEA-CN-316-3506



Materials: via Indico sever:

Preliminary Engineering Analysis for CN HCCB TBM Regarding ITER New Baseline Scenario

XINGHUA WU

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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

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IAEA-CN-316-3509

Materials: via Indico sever:



Surface damage and deuterium retention in tungsten under high-flux detached recombining linear plasmas

Jipeng Zhu

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Corresponding Author: Jipeng Zhu, *JipengZhu* <*zhujipeng0806@163.com*>

IAEA-CN-316-3512

Materials: via Indico sever:



Highly effective hydrogen isotope separation through quantum sieving

Renjin Xiong

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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

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IAEA-CN-316-3514

Materials: via Indico sever:



Predictive Modeling of Operational Stability in RF Negative Ion Sources Based on Experimental Parameters

Yang Li

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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

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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

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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

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IAEA-CN-316-3523

Materials: via Indico sever:



OVERVIEW OF THE WEST-ITER DIAGNOSTIC INSTRUMENTATION (WIDIA) COLLABORATION ACTIVITIES

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IAEA-CN-316-3525



Materials: via Indico sever:

Advanced Power Supply solutions Meeting High Standard for Fusion Research

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IAEA-CN-316-3527

Materials: via Indico sever:



FIRST CAMPAIGN WITH ALTERNATIVE DIVERTOR CONFIGURATIONS IN ASDEX UPGRADE

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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

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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

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IAEA-CN-316-3532



Materials: via Indico sever:

Investigation of Broadband-laser-induced Plasma Interaction and ablation properties

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IAEA-CN-316-3533

Materials: via Indico sever:



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IAEA-CN-316-3534



Materials: via Indico sever:

Enabling Adaptive Detachment Control: Novel Insights from Calibration-Free X-Point Phase Difference

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IAEA-CN-316-3535

Materials: via Indico sever:



EFFECTS OF THE MULTI-MODE ISLANDS ON THE RUNAWAY ELECTRON SUPPRESSION ON J-TEXT

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Corresponding Author: Zhifang Lin, *Zhi fangLin* < *zflin@jsnu.edu.cn* >

IAEA-CN-316-3536

Materials: via Indico sever:



NON-GYROKINETIC HIGH-FREQUENCY MODE INSTABILITY FOR TOKAMAK EDGE LIKE GRADIENTS

Mario Raeth

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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

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

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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

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IAEA-CN-316-3543

Materials: via Indico sever:



FEC 2025 Administrative and Technical Remarks

IAEA Scientific Secretaries, Takashi Inoue, Elisabeth Wolfrum

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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

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IAEA-CN-316-3545

Materials: via Indico sever:



[REGULAR TWIN POSTER] FIRST CAMPAIGN WITH ALTERNATIVE DIVERTOR CONFIGURATIONS IN ASDEX UPGRADE

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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:

