Session Program

13–18 Oct 2025

30th IAEA Fusion Energy Conference (IAEA FEC 2025)

Posters 5

Tianfu International Conference Center
Chengdu, China

Friday 17 October

08:30

Posters 5

Poster Session | **Location:** Tianfu International Conference Center, Chengdu, China

[REGULAR POSTER TWIN] Characterization of runaway impact on instrumented sacrificial limiters on DIII-D

Speaker
Eric Hollmann

[REGULAR POSTER TWIN] Thermal quench dynamics and heat flux distribution during massive-impurity-injection triggered disruption in EAST

Speaker
Dr Long Zeng

[REGULAR POSTER TWIN] Changes in disruption dynamics during the first operation of a Runaway Electron Mitigation Coil (REMC) on a tokamak

Speaker
Jeffrey Levesque

[REGULAR POSTER TWIN] FIRST DEMONSTRATION OF DISRUPTION AVOIDANCE BY REAL-TIME PHYSICS-BASED DISRUPTION EVENT CHARACTERIZATION AND FORECASTING ON KSTAR

Speaker
Steven Sabbagh

[REGULAR POSTER TWIN] ANALYSIS AND SIMULATION OF EFFECTIVE RUNAWAY ELECTRON MITIGATION USING A PASSIVE COIL IN J-TEXT TOKAMAK

Speaker
Chang Liu

[REGULAR POSTER TWIN] Transition from Bursting ELMs to Continuous Turbulence Fluctuations in High SOL Density Regimes

Speaker
Nami Li

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

Speaker
Prof. Jong Kyu Park

[REGULAR TWIN POSTER] FIRST SOLPS-ITER WIDE GRID SIMULATIONS OF THE ITER BURNING PLASMA SCRAPE-OFF LAYER

Speaker
Prof. Elizaveta Kaveeva

[REGULAR TWIN POSTER] SOLPS-ITER Simulations of an X-point Radiator in the DIII-D High-beta Hybrid Plasmas

Speaker
Xinxing Ma

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

Speaker
Gian Mario Polli

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

Speaker
Valerie LAMAISON

[REGULAR TWIN POSTER] Design and qualification activity of the first divertor of the DIVERTOR TOKAMAK TEST FACILITY

Speaker
Selanna Roccella

[REGULAR TWIN POSTER] ACTIVELY COOLED PLASMA FACING COMPONENTS DESIGN FOR W7-X AND JT-60SA IN SUPPORT OF THE ITER DIVERTOR

Speaker
Marianne Richou

[REGULAR TWIN POSTER] Advancing Plasma-Facing Materials for Fusion Pilot Plants at DIII-D

Speaker
Dr Jonathan Coburn

[REGULAR TWIN POSTER] PERFORMANCE EVALUATION OF TUNGSTEN FIBER-REINFORCED TUNGSTEN COMPOSITES DEVELOPED AT SWIP FOR APPLICATION IN NUCLEAR FUSION REACTORS

Speaker
Juan Du

Optimization of Shattered Pellet Injection (SPI) Composition for Maximal Assimilation

Speaker
Jeffrey Herfindal

THE INTERACTION BETWEEN THE EDGE DISLOCATION AND THE DISLOCATION LOOP-BUBBLE COMPLEX UNDER SHEAR STRESS IN BCC IRON

Speaker
Prof. Min Xu

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

Speaker
Yucai Li

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

Speaker
Dr Shuhei Sumida

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

Speaker
Dr Pavel Goncharov

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

Speaker
Yuhe Feng

CERMET ALLOYS FOR HYBRID FISSION-FUSION NUCLEAR REACTOR

Speaker
Prof. Juana L Gervasoni

THE USE OF ELECTRON TEMPERATURE COLLAPSES AND EVOLUTION TO FORECAST AND AVOID DISRUPTIONS AND ITS APPLICATION IN THE KSTAR DEVICE THROUGH DECAF

Speaker
Guillermo Bustos Ramirez

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

Speaker
Michal Jan Kryjak

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

Speaker
Jiafeng He

Development of Reduced-Activation High-Strength High-Conductivity Copper Alloys for Additive Manufacture of Fusion Reactor Components

Speaker
Andrew Seltzman

Effect of boron powder injection on the density limit in the Large Helical Device

Speaker
Federico Nespoli

Active control of internal disruptions via cold pulse propagation in Aditya-U Tokamak.

Speaker
Suman Dolui

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

Speaker
Liqing Xu

OVERVIEW OF PLASMA DISRUPTION MITIGATION ON J-TEXT TOKAMAK

Speaker
Wei Yan

FIRST EXPERIMENTAL VALIDATION OF THE PROTOTYPE ITER HARD X-RAY MONITOR FOR RUNAWAY ELECTRON STUDIES IN ADITYA-U TOKAMAK

Speaker
Dr Santosh Pandya

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

Speakers
Wei Zheng, Xinkun Ai

INTRODUCTION TO SINGLE CRYSTAL DISPERSION INTERFEROMETER (SCDI) AND ITS MEASUREMENT IN KSTAR FOR PLASMA DISRUPTION MITIGATION STUDY

Speaker
Dong-geun Lee

3-DIMENSIONAL VACUUM FIELD MODELING AND EDGE PLASMA RESPONSE TO APPLIED RADIAL MAGNETIC PERTURBATION IN ADITYA-U TOKAMAK

Speaker
Ananya Kundu

ANALYSIS AND UNDERSTANDING OF ACCELERATED MODE DISRUPTIONS IN THE ADITYA-U TOKAMAK

Speaker
Soumitra Banerjee

Generalizing Shadow Mask Predictions for SPARC Plasma-Facing Components Using Machine Learning

Speaker
Lilia Domenica Corona Rivera

SIMULATIONS OF RMP CONFIGURATIONS FOR TUNGSTEN IMPURITY CONTROL IN EAST TOKAMAK

Speaker
Zihao Gao

Simulation of Hydrogen Isotope Retention in Tungsten under Fusion-Relevant Conditions

Speaker
Chao Yin

PLASMA TRANSPORT STUDY WITH 3D SHAPED FIRST WALL FOR LIMITER RAMP-UP PHASE OF ITER

Speaker
Arzoo Malwal

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

Speaker
Yifei Wu

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

Speaker
Dr Tatsuya Yokoyama

PROGRESS ON THE ENGINEERING QUALIFICATION OF CN-RAFM STEEL

Speaker
Guoping YANG

Integrated disruption mitigation planning on tokamak power reactors and its physics bases

Speaker
Xianzhu Tang

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

Speaker
Luca Balbinot

SANS investigation of precipitate evolution and optimum tempering temperature of RAFM nuclear reactor steel and weld

Speaker
Gokulnath Kadavath

Effective corrosion and Tritium barrier coatings in PbLi WCLL-BB

Speaker
Sebastiano Cataldo

High Intensity Neutron Source for Fusion Nuclear Technology Development

Speaker
Qi YANG

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

Speaker
Dr Vladislav Plyusnin

THE BELGIUM CONTRIBUTION TO THE DEVELOPMENT OF STEELS FOR FUSION APPLICATIONS

Speaker
Dmitry Terentyev

EXPERIMENTAL STUDY OF THE 2/1 MODE RMP ON THE RUNAWAY CURRENT SUPPRESSION DURING DISRUPTIONS ON J-TEXT

Speaker
Zhifang Lin

Development of the nuclear radiation shield concept for the Volumetric Fusion Source

Speaker
Pavel Pereslavtsev

Calculation of dust grain charging in tokamak plasma conditions

Speaker
Murat Myrzaly

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

Speaker
Zhenhou Wang

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

Speaker
Chen Zhang

MULTI-DEVICE ROTATING MHD MODE LOCK AND DISRUPTION FORECASTER WITH REAL-TIME FEEDBACK FOR DISRUPTION AVOIDANCE

Speaker
Juan Riquezes

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

Speaker
Jiaxing Liu

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

Speaker
Dr Jayhyun Kim

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

Speaker
Dr weijun Wang

Exploration of Ohmic Plasma Current Control Strategies for the ADITYA-U Tokamak

Speaker
Mr Rohit Kumar

Deuterium interaction with low–activated chromium-manganese austenitic steel with increased contamination of carbide particles

Speaker
Anna Golubeva

VERIFICATION AND OPTIMIZATION OF VDES BY COUPLING THE FREE-BOUNDARY EQUILIBRIUM AND TRANSPORT CODES WITH CONTROL IN THE HL-3 TOKAMAK

Speaker
Dr Xiao Song

IMPACT OF MHD ACTIVITY ON ENERGETIC ELECTRON DYNAMICS IN LHCD-ASSISTED PLASMA SCENARIOS IN ADITYA-U TOKAMAK

Speaker
Komal Yadav

ACTIVE TEARING MODE AVOIDANCE WITH MACHINE LEARNING CONTROLLERS

Speaker
Andrew Rothstein

DYNAMICS OF INTERNAL RECONNECTION EVENTS IN VERSATILE EXPERIMENT SPHERICAL TORUS

Speaker
Myungwon Lee

CHALLENGES IN PWI MODELLING FOR METALLIC DEVICES AT THE EXAMPLE OF THE EU-DEMO TOKAMAK

Speaker
Christoph Baumann

EFFECT OF IMPURITY DISTRIBUTION ON THE STABILITY OF NEOCLASSICAL TEARING MODE

Speaker
xin yu

Study of erosion of ceramic materials under transient thermal load

Speaker
Alexandr Kasatov

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

Speaker
Yunhu Jia

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

Speaker
Hui-Hui WANG

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

Speaker
Yanjie Zhang

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

Speaker
Dr Sven Wiesen

LIQUID METAL DROPLETS SYSTEMS FOR APPLICATION IN TOKAMAKS AND PLASMA DEVICES

Speaker
Alexey Dedov

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

Speaker
Ilya Senichenkov

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

Speaker
Ivan Belyaev

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

Speaker
Daisuke Umezaki

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

Speaker
Dr Mengdi Kong

PROGRESS IN PLASMA-WALL INTERACTIONS MODELLING FOR EU-DEMO

Speaker
Sebastijan Brezinsek

Conceptual design of the Divertor Tokamak Test (DTT) Cryogenic System

Speaker
Morena Angelucci

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

Speaker
Qian Xia

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

Speaker
Igor Andreevich Sokolov

SIMULATION STUDY ON TUNGSTEN FIRST WALL EROSION AND IMPURITY TRANSPORT IN EAST TOKAMAK

Speaker
yihan wu

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

Speaker
Sergey Fedorovich

Starting DTT infrastructures construction at ENEA Frascati Site

Speaker
Enrico DI PIETRO

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

Speaker
Chengshuo Shen

MACHINE LEARNING-BASED MULTIMODAL SUPER-RESOLUTION: EXPERIMENTAL EVIDENCE FOR ELM SUPPRESSION MECHANISM THROUGH RMP-INDUCED MAGNETIC ISLAND FORMATION

Speaker
Azarakhsh Jalalvand

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

Speaker
George Holt

Modeling of wall material evolution and the impact on edge particle recycling for long pulse discharges in EAST

Speaker
Guoliang XU

RECENT PROGRESS IN IMPROVEMENT OF ATOMIC AND MOLECULAR PROCESS TREATMENT IN EIRENE-NGM

Speaker
Dr Dmitriy Borodin

Enabling Advanced Plasma Shapes on MAST-U Spherical Tokamak

Speaker
Dr Andrey Lvovskiy

Design and Optimization of Advanced Divertor Configurations for Heat Flux Management in the EHL-2 Spherical Torus Project

Speaker
Xiang gU

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

Speaker
Fan Feng

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

Speaker
Naomi Carey

Frequency Hysteresis of MHD Instabilities in Helical and Tokamak Plasmas

Speaker
Yuki Takemura

A mechanism to trigger edge localized mode crash due to a threshold of magnetic perturbation driven by peeling-ballooning mode

Speaker
Dr Wenjin Chen

THE INFLUENCE OF E×B DRIFT COMBINED WITH DIVERTOR DOME ON PLASMA DETACHMENT IN CFETR BY USING SOLPS-ITER

Speaker
Xuele Zhao

Accelerating multiscale simulations of irradiated material properties using machine learning

Speaker
Prof. Linyun Liang

ERROR FIELD IDENTIFICATION THROUGH TORQUE BALANCE ON A MAGNETIC ISLAND WITH ROTATING MAGNETIC PERTURBATION

Speaker
Yanzheng Jiang

Advanced Materials to Enable Timely Deployment of Fusion Energy

Speaker
Prof. Steven Zinkle

Prediction and real-time control of the tokamak L-mode density limit via edge collisionality

Speaker
Andrew Maris

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

Speaker
Dr Jekil Lee

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

Speaker
Zhaofan Wang

Development of pure boron pellet for fusion reactor

Speaker
Hiroyuki Noto

ASSESSMENT OF B4C AS FIRST WALL COATING FOR THERMONUCLEAR REACTOR

Speaker
Dr Anton Putrik

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