Session Program

13–18 Oct 2025

30th IAEA Fusion Energy Conference (IAEA FEC 2025)

Posters 7

Saturday 18 October

08:30

Posters 7

Poster Session | **Location:** Chengdu, China

[REGULAR TWIN POSTER] ANALYSIS OF FUEL RETENTION AND RECOVERY IN JET WITH BE-W WALL

Speaker
Dr Dmitry Matveev

[REGULAR TWIN POSTER] JOREK simulation of injection assimilation and radiation asymmetry during ITER H-mode dual SPIs

Speaker
Di Hu

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

Speaker
Hannes Bergström

[REGULAR TWIN POSTER] Piecewise omnigenous fields: a radically new family of optimized magnetic fields for stellarator reactors

Speaker
Dr Jose Luis Velasco Garasa

[REGULAR TWIN POSTER] MODELLING OF MILDLY RELATIVISTIC RUNAWAY ELECTRONS – DEVELOPMENT OF REDUCED-KINETIC MODEL AND VALIDATION IN KSTAR OHMIC STARTUP

Speaker
Yeongsun Lee

[REGULAR TWIN POSTER] A novel method to optimize omnigenity like quasisymmetry for stellarators

Speaker
Caoxiang Zhu

[REGULAR TWIN POSTER] OVERVIEW OF THE DCLL BREEDING BLANKET FOR HELIAS 5-B AND FURTHER STEPS TOWARDS A NOVEL QI DEVICE

Speaker
IOLE PALERMO

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

Speaker
Elodie Bernard

[REGULAR TWIN POSTER] NEUTRONICS FOR ITER NUCLEAR PHASE: INSIGHTS AND LESSONS LEARNT FROM JET DT OPERATION

Speaker
Rosaria Villari

[REGULAR TWIN POSTER] EXPERIMENTAL STUDY ON TRITIUM RELEASE FROM LI2TIO3 PEBBLES AS TRITIUM BREEDER THROUGH INTERNATIONAL COLLABORATION BETWEEN KOREA AND CHINA

Speaker
Dr Yi-Hyun PARK

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

Speaker
Tomoya Akagi

[REGULAR TWIN POSTER] DEVELOPING LONG PULSE HYBRID SCENARIO IN DIII-D AND KSTAR FOR W-COMPATIBLE STEADY-STATE OPERATION TOWARD ITER

Speaker
Dr SangKyeun Kim

[REGULAR TWIN POSTER] Simulation of tungsten erosion and edge-to-core transport in neon-seeded JET plasmas

Speaker
Henri Kumpulainen

[REGULAR TWIN POSTER] PROGRESS TOWARDS DEVELOPMENT OF PROTOTYPE RADIO FREQUENCY SOURCE FOR ITER ION CYCLOTRON RESONANCE HEATING SYSTEM

Speaker
Akhil JHA

[REGULAR TWIN POSTER] Theory-based integrated modelling of tungsten transport: validation in present-day tokamaks and predictions for ITER

Speaker
Daniel Fajardo

[REGULAR TWIN POSTER] TESTING TUNGSTEN PLASMA FACING COMPONENTS IN WEST AND AUG TOKAMAKS : LESSONS FOR ITER

Speaker
yann corre

[REGULAR TWIN POSTER] NUMERICAL MODELING AND EXPERIMENTAL ASSESSMENT OF RF SHEATH GENERATION DUE TO FAR-FIELD RF ELECTRIC FIELD

Speaker
Seung Gyou Baek

[REGULAR TWIN POSTER] Tungsten limiter Start-up experiments in different boronization states in support of ITER

Speaker
Jörg Hobirk

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

Speaker
Dr Hibiki Yamazaki

[REGULAR TWIN POSTER] First performance test of multi-frequency gyrotron for ITER and fusion devices

Speaker
Dr Takahiro Shinya

[REGULAR TWIN POSTER] PERFORMANCE OF JT-60SA SUPERCONDUCTING MAGNET OPERATION IN INTEGRATED COMMISSIONING TEST

Speaker
Katsuhiko TSUCHIYA

[REGULAR TWIN POSTER] OVERVIEW OF RECENT RESULTS IN RESEARCH TACKING REMOTE MAINTENANCE CHALLENGES OF FUTURE FUSION ENERGY DEVICES

Speaker
Robert Skilton

[REGULAR TWIN POSTER] Qualification, Fabrication, and Commissioning of High-Temperature Superconducting Magnets for Compact Fusion

Speaker
Brandon Sorbom

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

Speaker
Boris Kuteev

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

Speaker
Dr William Brace

Recent Progress of Dissimilar Material Bonding Technique with Spark Plasma Sintering Method for High Heat Load Plasma Facing Components in Reactor-relevant Devices

Speaker
Tomohiro Morisaki

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

Speaker
paolo zanca

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

Speaker
Yuto NOGUCHI

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

Speaker
Mrs Anastasiia Shcherbak

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

Speaker
Guizhong Zuo

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

Speaker
Mr LIANSHENG HUANG

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

Speaker
Shuowei Gao

THE EFFECT OF W SURFACE FUZZ INDUCED BY HE PLASMA ON DEUTERIUM PERMEATION

Speaker
Long Li

BB Segment Grasping Pipeline with Variable Admittance Control for EU DEMO Remote Maintenance

Speakers
Hjalte Durocher, Mr Xingyu Yang

ACCESSING STABLE OPERATIONAL WINDOWS IN K-DEMO

Speaker
Mr Jaymyoung Lee

DESIGN, DEVELOPMENT & TESTING OF TOROIDAL FIELD POWER SUPPLY (TFPS) FOR SMALL-SCALE SPHERICAL TOKAMAK (SS-ST)

Speaker
Urmil Thaker

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

Speaker
Zeshi Gao

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

Speaker
Teruya Tanaka

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

Speakers
Dohee Lee, Dr Woong Chae Kim

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

Speaker
Mr Vladimir Solokha

X point effects on the tokamak stability and confinement in the description of dual-poloidal-region safety factor

Speaker
Dr Linjin Zheng

Experimental and Modeling Studies of Boron Injection and Deposition in Support of ITER

Speaker
Dr Florian Effenberg

Recent progress of LIBRA project and new TBR measurements

Speaker
Remi Delaporte-Mathurin

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

Speaker
Xuebing PENG

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

Speaker
Jiming Chen

Experimental Verification of Al_2O_3-Insulated Non-inductive REBCO Coil Array in Quench Detection for Central Solenoids of Tokamaks

Speaker
Mr Jiang Lele

Strong toroidal electric field generation during sawtooth crashes

Speaker
Prof. Wei Zhang

Study of impurity particulate dynamics and impurity transport using the DiMES pellet launcher in DIII-D

Speaker
Dmitriy Orlov

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

Speaker
Vladimir Pustovitov

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

Speaker
Mr Yuxiang Sun

IMPURITY RADIATION SEEDING OF NEOCLASSICAL TEARING MODE GROWTH

Speaker
Shiyong Zeng

SIMULATION OF RUNAWAY ELECTRON AVALANCHE IN ITER DISRUPTION

Speaker
Feng Wang

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

Speaker
Dr Faridodin Sedighi

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

Speaker
LI LI

The ITER Tungsten First Wall

Speaker
Ryan Hunt

WEST advanced wall protection achievements toward long pulse operation

Speaker
Raphael MITTEAU

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

Speaker
Zongyu Yang

Improvements of Magnet Power Supply System and Achievements in Coil Energization Tests for First Plasma of JT-60SA

Speaker
Kunihito Yamauchi

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

Speaker
Sawoong KIM

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

Speaker
Antti Hakola

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

Speaker
Shinichiro Kojima

A Novel High-Temperature Superconducting Cable Design for Compact Tokamaks

Speakers
Qin Lang, Wu Run

Anisotropic Peeling-Ballooning Mode Scans of JET-like Equilibric

Speaker
Matthew Hole

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

Speaker
Yao Zhou

Achieving Full-Coverage Liquid GaInSn Film Flow under Magnetic Fields: Synergistic Effects of Wettability Optimization and Dual-Layer Structural Design

Speaker
Yiming Wang

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

Speaker
Hong Lei

TUNGSTEN DUST TRANSPORT IN THE STOR-M TOKAMAK

Speaker
Chijin Xiao

Development and validation of magneto-hydrodynamic turbulence models for the thermal-hydraulic design of ARC-class fusion reactor liquid blankets

Speaker
roberto zanino

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

Speaker
Victor Ilgisonis

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

Speaker
Shi-Jie Liu

Design and Test of a Unified Modular Pulsed Power Supply for All Magnets of the Negative Triangularity Spherical Tokamak (NTST)

Speaker
Mr Hongran Zhou

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

Speaker
Tomone SUWA

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

Speaker
Eleonore Geulin

Remote Handling Strategy of Volumetric Neutron Source Blanket

Speaker
Rocco Mozzillo

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

Speaker
Mohd Idzat Bin Idris

Reference Governor for Plasma Scalar Control to Prevent Stability Limit Breaches in Tokamaks

Speaker
Sai Tej Paruchuri

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

Speaker
Prof. Viacheslav Budaev

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

Speaker
Dr Kyle Damm

Virtual Tokamak for Integrated Physics and Engineering Analysis

Speaker
Jae-Min Kwon

Fusion-relevant tritium interactions with SS316L stainless steel

Speaker
Anete Teimane

FORMATION OF FRACTAL SUBSTANCE IN THERMONUCLEAR FACILITIES WITH HIGH HEAT FLUX TO MATERIALS

Speaker
Mr Leonid Khimchenko

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

Speaker
Tong Liu

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

Speaker
Masakatsu Fukumoto

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

Speaker
Zhe Liu

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

Speaker
Dr Bo Rao

n=0 VERTICAL DISPLACEMENTS, IMPACT OF MAGNETIC X-POINTS, AND VERTICAL DISPLACEMENT OSCILLATORY MODES DRIVEN BY FAST IONS IN TOKAMAK PLASMAS

Speaker
Francesco Porcelli

Force-electric coupling characteristics of CORC cables under bending load

Speaker
Shijie Shi

The 4C code as a candidate tool for the qualified analysis of superconducting magnets in the licensing of nuclear fusion reactors

Speaker
roberto zanino

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

Speaker
yu chen

SYNCHROTRON RADIATION FROM RUNAWAY ELECTRONS AND POSITRONS IN LORENTZIAN PLASMAS

Speaker
Erik Shalenov

STUDIES ON LOW ENERGY HELIUM PLASMA EXPOSURE BEHAVIOUR OF TUNGSTEN-BASED HIGH ENTROPY ALLOY

Speaker
Mayur Kakati

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

Speaker
Changzhi Jiang

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

Speaker
Takuya Iwamoto

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

Speaker
Weixi Chen

PROGRESS OF HTS MAGNET TECHNOLOGY DEVELOPMENT FOR THE NEXT GENERATION FUSION DEVICE AT ASIPP

Speaker
Huan Jin

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

Speaker
Prof. Jose Martin-Solis

ELIMINATING TOKAMAK MAJOR DISRUPTIONS WITH FEEDBACK

Speaker
Henry Strauss

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

Speaker
Francisco Javier Artola Such

High-Fidelity WarpX Simulations of Long-Lived Advanced FRCs

Speaker
Roelof Groenewald

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

Speaker
Emilio Ruiz Morales

THE DEVELOPMENT OF 3D MHD CODE IN COMSOL MULTIPHYSICS AND ITS APPLICATION FOR MHD FLOW IN RIPPLED MAGNETIC FIELD

Speaker
Mr Jun Wang

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

Speakers
Mr Zhang Chi, Qin Lang

STEP INBOARD SYSTEM – ARCHITECTURE AND TECHNOLOGY DEVELOPMENT OVERVIEW

Speaker
Simon Kirk

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

Speaker
Igor Garkusha

Modeling of heat flux on the main limiter in EAST

Speaker
binfu Gao

HYDROGEN ISOTOPE RETENTION BEHAVIOR IN WTAVCR HIGH-ENTROPY ALLOY FOR FUSION APPLICATIONS

Speaker
Na Zhang

Nonlinear simulations of core density collapses in Large Helical Device

Speaker
Jacobo Varela Rodriguez

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

Speaker
Hong Lei

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