

**Session Program**

22-27 Oct 2018

**27th IAEA Fusion Energy Conference - IAEA CN-258**

***P6 Posters***

Mahatma Mandir Conference Centre  
Gandhinagar (nearest Airport: Ahmedabad), India

# Thursday 25 October

14:00

## P6 Posters

Poster Session | Location: Mahatma Mandir Conference Centre, Gandhinagar (nearest Airport: Ahmedabad), India

### Inter vs. Intra-ELM Tungsten Erosion and Transport from the Divertor in DIII-D High-Performance H-mode Discharges

Speaker  
Dr Tyler Abrams

### Scalings of Ion Temperature Gradient Turbulence and Transport

Speaker  
Prof. Paul Terry

### Towards a predictive modelling capacity for DT plasmas: European Transport Simulator (ETS) verification and validation

Speaker  
Dr Par Strand

### High confinement in negative triangularity discharges in DIII-D

Speaker  
Dr Max Austin

### Disruption Event Characterization and Forecasting in Tokamaks

Speaker  
Dr Steven Sabbagh

### Progress in the ITER Integrated Modelling Programme and the ITER Scenario Database

Speaker  
Dr Simon Pinches

### Implementing a finite-state off-normal and fault response system for robust disruption avoidance in tokamaks

Speaker  
Dr Nicholas Eidiētis

### ELMs onset triggered by mode coupling near rational surfaces in the pedestal

Speaker  
Dr Ahmed Diallo

### DIII-D Shaping Demonstrates Correlation of Intrinsic Momentum with Energy

Speaker  
Dr John deGrassie

### Error Field Impact on Mode Locking and Divertor Heat Flux in NSTX-U

Speaker  
Nathaniel Ferraro

### Measurements of high-Z divertor impurity sourcing and divertor leakage using isotopic tungsten tracer sources in DIII-D

**Speaker**  
Dr Ezekial Unterberg

### **Self-driven Current Generation in Turbulent Fusion Plasmas**

**Speaker**  
Dr Weixing Wang Wang

### **Kinetic Simulation Studies on Multi-ion-species Plasma Transport in Helical Systems**

**Speaker**  
Dr Masanori Nunami

### **Nonlinear gyrokinetic analysis of linear Ohmic confinement to saturated Ohmic confinement transition**

**Speaker**  
Dr Lei Qi

### **Parallel Energy Transport in Detached DIII-D Divertor Plasmas**

**Speaker**  
Mr Anthony Leonard

### **Simulation study of electrostatic potential generated by NBI and its effect on the neoclassical transport of carbon impurity ions in LHD**

**Speaker**  
Prof. Hiroyuki Yamaguchi

### **En Route to High-Performance Discharges: Insights and Guidance from High-Realism Gyrokinetics**

**Speaker**  
Dr Tobias Görler

### **Parametric study of the impurity profile in the Thailand tokamak**

**Speaker**  
Dr Siriyaporn Sangaroon

### **Physics-model-based Real-time Optimization for the Development of Steady-state Scenarios at DIII-D**

**Speaker**  
Prof. Eugenio Schuster

### **Extending the boundary heat flux width database to 1.3 Tesla poloidal magnetic field in the Alcator C-Mod tokamak**

**Speaker**  
Dr Maxim Umansky

### **Injection of Multiple Shattered Pellets for Disruption Mitigation in DIII-D**

**Speaker**  
Dr Jeffrey Herfindal

### **Numerical simulation of high neutron rate JET-ILW DD pulses in view of extension to DT experiments**

**Speaker**  
Mr Giuseppe Telesca

### **Critical Processes of Tearing Mode Entrainment in the Presence of a Static Error Field**

**Speaker**  
Dr Michio Okabayashi

### **Ion and Electron Temperature Predictions based on Thailand Tokamak Plasmas using CRONOS Code**

**Speaker**  
Dr Boonyarit Chatthong

### **Favorable Impact of RMP ELM Suppression On Divertor Heat Fluxes at ITER-like Conditions**

**Speaker**  
Dr Alberto Loarte

### **Study of evolution of trapped particle undamped coherent structures: An important agent in intermittent plasma turbulence and anomalous transport**

**Speaker**  
Mr Debraj Mandal

### **Quantification of Radiating Species in the DIII-D Divertor in the Transition to Detachment Using Extreme Ultraviolet Spectroscopy**

**Speaker**  
Dr Adam McLean

### **Machine learning for disruption warning on Alcator C-Mod, DIII-D, and EAST Tokamaks**

**Speaker**  
Dr Robert Granetz

### **Transport of collisional impurities with flux-surface density variation in stellarator plasmas**

**Speaker**  
Mr Stefan Buller

### **Dynamic Neutral Beam Injection as a Mechanism for Plasma Control and an Actuator for Instability Drive**

**Speaker**  
Mr B.A. Grierson

### **Fast ITER-relevant low-disruptivity rampdowns in DIII-D and EAST**

**Speaker**  
Dr Jayson Barr

### **Rotation Profile Hollowing in DIII-D Low-Torque Electron-Heated H-mode Plasmas**

**Speaker**  
Dr B.A. Grierson

### **Observation of efficient lower hybrid current drive at high density on Alcator C-Mod**

**Speaker**  
Seung Gyou Baek

### **Development of a High-Flux Fusion Neutron Source Using Recent Advances in Technology**

**Speaker**  
Prof. Cary Forest

### **Confinement in stellarators with the global gyrokinetic code XGC**

**Speaker**  
Dr Michael Cole

### **Global Alfvén eigenmode stability dependence on fast-ion distribution function**

**Speaker**  
Dr Mario Podesta

### **Application of the Semi-Implicit Numerical Method on the Radial Impurity Transport Equation and Determination of O<sub>4+</sub> Emissivity with Two Separate PEC Databases**

**Speaker**  
Ms AMRITA BHATTACHARYA

### **High Performance Double-null Plasmas Under Radiating Divertor and Mantle Scenarios on DIII-D**

**Speaker**  
Dr Thomas W. Petrie

### **Physics of fast component of deuterium gas jet injection in magnetized plasmas**

**Speaker**  
Dr Zhanhui Wang

### **Total-f gyrokinetic turbulent-neoclassical simulation of global impurity transport and its effect on the main-plasma confinement**

**Speaker**  
Dr Choong-Seock Chang

### **Particle Transport from the Bottom Up**

**Speaker**  
Prof. Saskia Mordijck

### **Enhancement of helium exhaust during suppression of edge localized modes by resonant magnetic perturbation fields at DIII-D**

**Speaker**  
Dr Edward Hinson

### **Development and First Experimental Tests of a Small Angle Slot Divertor on DIII-D**

**Speaker**  
Mr Houyang Guo

### **Investigation of fast particle redistribution induced by sawtooth instability in NSTX-U**

**Speaker**  
Dr Doohyun Kim

### **The Effect of RMP ELM Control for ITER on Pedestal Pressure Compared to EPED No-RMP Predictions**

**Speaker**  
Dr Max Fenstermacher

### **High-Frequency Energetic Particle Driven Instabilities and their Implications for Burning Plasmas**

**Speaker**  
Dr Kathreen Thome

### **Observation of Multiple Helicity Mode-Resonant Locking Leading to a Disruption on DIII-D**

**Speaker**  
Morgan Shafer

### **Rotation-induced electrostatic-potentials and density asymmetries in NSTX**

**Speaker**  
Dr Luis F. Delgado-Aparicio

### **Fast wave experiments in LAPD in support of fusion**

**Speaker**  
Dr Bart Van Compernelle

### **Neural-network accelerated coupled core-pedestal simulations with self-consistent transport of impurities**

**Speaker**  
Dr Orso Meneghini

### **Flux-surface averaged radial transport in toroidal plasmas with magnetic islands**

**Speaker**  
Dr Daniel López-Bruna

### **Theory of turbulence driven intrinsic rotation and current**

**Speaker**  
Prof. Lu Wang

### **Transport simulation of EAST long pulse discharge and high betaN discharge with integrated modelling**

**Speaker**  
Dr Guoqiang Li

### **Weak turbulence transport with background flows using mapping techniques including finite Larmor radius effects**

**Speaker**  
Dr Julio Martinell

### **Dynamics of Neon Ions after Neon Gas Seeding and Puffing into Tokamak Plasma**

**Speaker**  
Dr Nirmal Kumar Bisai

### **Access Requirements for Stationary ELM-suppressed Pedestals in DIII-D and C-Mod Plasmas**

**Speaker**  
Dr Theresa Wilks

### **First Simulations of Turbulent Transport in the Field-Reversed Configuration**

**Speaker**  
Prof. Zhihong Lin

### **Advancing Local Helicity Injection for Non-Solenoidal Tokamak Startup**

**Speaker**  
Dr Michael Bongard

### **The universality of inter-ELM pedestal fluctuations in AUG and DIII-D - Impacting the edge profile structure by clamping of the gradients**

**Speaker**  
Dr Florian M. Laggner

### **Analysis and modelling of NTMs dynamics in JET discharges using the European Transport Simulator (ETS) and integrated modelling tools**

**Speaker**  
Dr Silvana Nowak

### **Gyrokinetic Modeling of Turbulent Particle Fluxes towards Efficient Predictions of Density Profiles**

**Speaker**  
Ms Emi Narita