

21st European Fusion Theory Conference



Report of Contributions

Contribution ID: **69**

Type: **not specified**

Registration

Tuesday, September 23, 2025 7:45 AM (30 minutes)

Contribution ID: 70

Type: **not specified**

Welcome

Tuesday, September 23, 2025 8:15 AM (15 minutes)

Contribution ID: 71

Type: **not specified**

I.1-Barabaschi: Status of the ITER project

Tuesday, September 23, 2025 8:30 AM (50 minutes)

Presenter: Dr BARABASCHI, Pietro (Iter)

Contribution ID: 72

Type: **not specified**

I.5-Zarzoso: Energetic particle transport in theory, modelling and experiments in magnetically confined plasmas

Tuesday, September 23, 2025 9:20 AM (40 minutes)

Presenter: ZARZOSO, David (CNRS, Aix-Marseille Université)

Contribution ID: 73

Type: **not specified**

O.1-Grondin-Exbrayat: Numerical Investigation of Fishbone Phase-space Nonlinear Dynamic : Impact of the MHD Nonlinear Effects

Tuesday, September 23, 2025 10:00 AM (25 minutes)

Presenter: GRONDIN-EXBRAYAT, Alodie (Aix-Marseille Université, CNRS, PIIM UMR7345, Marseille, France)

Contribution ID: 74

Type: **not specified**

I.6-Brochard: Transformation of energetic particle distributions into constants of motion coordinates for realistic simulations of EP-driven modes, and application to Alfvén eigenmodes stability in DIII-D plasmas

Tuesday, September 23, 2025 10:50 AM (40 minutes)

Presenter: BROCHARD, Guillaume (CEA Cadarache)

Contribution ID: 75

Type: **not specified**

0.2-Votta: Runaway electron dynamics in ITER shattered pellet injection mitigated disruptions

Tuesday, September 23, 2025 11:30 AM (25 minutes)

Presenter: VOTTA, Lorenzo (KTH Royal Institute of Technology)

Contribution ID: 76

Type: **not specified**

O.3-Edes: Resistive Wall Tearing Modes in View of Natural Disruption Dynamics

Tuesday, September 23, 2025 11:55 AM (25 minutes)

Presenter: ÉDES, Lili (EPFL SPC)

Contribution ID: 77

Type: **not specified**

Lunch break

Contribution ID: 78

Type: **not specified**

Poster 1

Tuesday, September 23, 2025 1:30 PM (2 hours)

Contribution ID: 79

Type: **not specified**

Coffee break

Contribution ID: 80

Type: **not specified**

I.7-Vallhagen: Semi-analytical model for the pellet rocket effect in magnetic confinement fusion plasmas

Tuesday, September 23, 2025 4:00 PM (40 minutes)

Presenter: VALLHAGEN, Oskar (Chalmers University of Technology)

Contribution ID: **81**

Type: **not specified**

0.4-Ciraolo: Transport and turbulence in edge tokamak plasma: Hierarchy of models in SOLEDGE3X code and comparison with experiments

Tuesday, September 23, 2025 4:40 PM (25 minutes)

Presenter: CIRAOLLO, Guido (CEA)

Contribution ID: 82

Type: **not specified**

O.5-Hallatschek: Non-gyrokinetic high-frequency mode instability for tokamak edge like gradients

Tuesday, September 23, 2025 5:05 PM (25 minutes)

Presenter: Dr HALLATSCHEK, Klaus (Max-Planck-Institute for Plasma Physics)

Contribution ID: 83

Type: **not specified**

I.2-Alonso: Fundamental physics and technology considerations of stellarator reactor design

Wednesday, September 24, 2025 8:30 AM (50 minutes)

Presenter: ALONSO, Arturo (CIEMAT)

Contribution ID: **84**

Type: **not specified**

I.8-Goodman: Searching for SQulDs: Developments in the optimisation of Stable Quasi-Isodynamic Designs

Wednesday, September 24, 2025 9:20 AM (40 minutes)

Presenter: GOODMAN, Alan (Max Planck Institute for Plasma Physics)

Contribution ID: 85

Type: **not specified**

O.6-Calvo: A new class of optimized stellarators with zero bootstrap current

Wednesday, September 24, 2025 10:00 AM (25 minutes)

Presenter: CALVO, Ivan (Laboratorio Nacional de Fusion, CIEMAT, Madrid, Spain)

Contribution ID: 86

Type: **not specified**

I.9-Paul: Reduced models for energetic particle transport in 3D magnetic fields

Wednesday, September 24, 2025 10:50 AM (40 minutes)

Presenter: PAUL, Elizabeth (Princeton University)

Contribution ID: 87

Type: **not specified**

O.7- De Gianni: Effect of the magnetic geometry on Trapped Electron Modes instability: linear and non linear analysis

Wednesday, September 24, 2025 11:30 AM (25 minutes)

Presenter: DE GIANNI, Ludovica (CEA Cadarache)

Contribution ID: **88**

Type: **not specified**

O.8-Zestanakis: Geometric Identification of Mode-Particle Resonances and Transport Barriers in Realistic Tokamak Equilibria

Wednesday, September 24, 2025 11:55 AM (25 minutes)

Presenter: ZESTANAKIS, Panagiotis (National Technical University of Athens)

Contribution ID: **89**

Type: **not specified**

Poster 2

Wednesday, September 24, 2025 1:30 PM (2 hours)

Contribution ID: 90

Type: **not specified**

I.10-Duarte: Shifting and Splitting of Resonance Lines due to Dynamical Friction in Plasmas

Wednesday, September 24, 2025 4:00 PM (40 minutes)

Presenter: DUARTE, Vinicius (Princeton Plasma Physics Laboratory)

Contribution ID: 91

Type: **not specified**

O.9-Sanchez: CIEMAT-QI4X: a reactor-relevant stellarator configuration compatible with an island divertor

Wednesday, September 24, 2025 4:40 PM (25 minutes)

Presenter: SANCHEZ, Edilberto

Contribution ID: 92

Type: **not specified**

O.10-Jamann: Insights into the ExB staircase via synthetic reflectometry and gyrokinetic modeling

Wednesday, September 24, 2025 5:05 PM (25 minutes)

Presenter: JAMANN, Antoine (CEA, IRFM, F-13108 Saint Paul-lez-Durance, France)

Contribution ID: 93

Type: **not specified**

I.3-Hizanidis: A quantum computing approach to electromagnetic wave propagation in fusion plasmas

Thursday, September 25, 2025 8:30 AM (50 minutes)

Contribution ID: 94

Type: **not specified**

I.11-Ewart: Rapid thermalisation, and non-thermal equilibria in near-collisionless plasmas

Thursday, September 25, 2025 9:20 AM (40 minutes)

Presenter: EWART, Robert (Princeton University)

Contribution ID: 95

Type: **not specified**

O.11-Turica: Drift-kinetic electron-temperature-gradient turbulence and cascade suppression by density gradients

Thursday, September 25, 2025 10:00 AM (25 minutes)

Presenter: TURICA, Leonard-Petru (Rudolf Peierls Centre for Theoretical Physics, University of Oxford, Oxford, OX13PU, UK, United Kingdom Atomic Energy Authority, Culham Science Centre, Abingdon, OX14 3DB, UK, University College, Oxford, OX1 4BH, UK)

Contribution ID: 96

Type: **not specified**

I.12-Foster: Alpha-particle orbits near rational flux surfaces in stellarators

Thursday, September 25, 2025 10:50 AM (40 minutes)

Contribution ID: 97

Type: **not specified**

O.12-Rofman: Finite beta effects in global, electromagnetic, gyrokinetic, linear and nonlinear simulations of Alfvén eigenmodes and microturbulence

Thursday, September 25, 2025 11:30 AM (25 minutes)

Presenter: ROFMAN, Baruch (Ecole Polytechnique Fédérale de Lausanne, Swiss Plasma Center, CH-1015 Lausanne, Switzerland)

Contribution ID: 98

Type: **not specified**

O.13- De Lucca: Electromagnetic suppression of drift-wave turbulence and the LH transition

Thursday, September 25, 2025 11:55 AM (25 minutes)

Presenter: DE LUCCA, Brenno Jason Sanzio Peter

Contribution ID: 99

Type: **not specified**

I.13-Garcia: Resilient Stellarator Divertor Characteristics in the Helically Symmetric eXperiment

Thursday, September 25, 2025 1:30 PM (40 minutes)

Contribution ID: **100**

Type: **not specified**

I.4-Belli: Multiscale analysis of improved confinement regimes in D-T plasmas

Friday, September 26, 2025 8:30 AM (50 minutes)

Presenter: BELLI, Emily

Contribution ID: **101**

Type: **not specified**

I.14-Mishchenko: Global electromagnetic turbulence and waves in stellarator plasmas

Friday, September 26, 2025 9:20 AM (40 minutes)

Presenter: MISHCHENKO, Alexey

Contribution ID: **102**

Type: **not specified**

O.15-Mariani: Predicting the transport of a DTT negative triangularity scenario

Friday, September 26, 2025 10:00 AM (25 minutes)

Presenter: MARIANI, Alberto (ISTP-CNR Milano)

Contribution ID: **103**

Type: **not specified**

I.15-Kazakov: Alpha-Particle Physics Studies in D-3He Plasmas at JET and JT-60SA in Support of the ITER Rebaseline

Friday, September 26, 2025 10:50 AM (40 minutes)

Presenter: KAZAKOV, Yevgen (Laboratory for Plasma Physics, LPP-ERM/KMS, Brussels, Belgium)

Contribution ID: **104**

Type: **not specified**

O.16-Singh: JOREK modelling of Runaway Electron beam benign termination in JET

Friday, September 26, 2025 11:30 AM (25 minutes)

Presenter: SINGH, Lovepreet (CEA IRFM)

Contribution ID: **105**

Type: **not specified**

O.17-Lanzarone: Comparison of Neural Network and XGBoost Decision Trees as Reduced Linear Gyrokinetic Model Surrogates for Growth Rate and Stability Prediction

Friday, September 26, 2025 11:55 AM (25 minutes)

Presenter: LANZARONE, Matisse (Universite Aix-Marseille)

Contribution ID: **106**

Type: **not specified**

I.16-Ferraro: Extended-MHD Stellarator Modeling with M3D-C1

Friday, September 26, 2025 1:30 PM (40 minutes)

Contribution ID: **107**

Type: **not specified**

I.17-Garcia-Regana: The role of impurities on electrostatic stellarator turbulence

Friday, September 26, 2025 2:10 PM (40 minutes)

Presenter: GARCIA-REGANA, Jose Manuel (CIEMAT)

Contribution ID: **108**

Type: **not specified**

O.14-Varadarajan: Integrated Modelling of Tungsten Erosion, Transport, and Radiation in WEST Geometry

Friday, September 26, 2025 2:50 PM (25 minutes)

Presenter: VARADARAJAN, Naren (IRFM)

Contribution ID: **109**

Type: **not specified**

Closing session

Friday, September 26, 2025 3:15 PM (20 minutes)