The 2025 Sherwood Conference, Poster Session 1

Date: Monday, April 7, 2025
Time: 11:30 AM - 12:30 PM
Location: Grand Ballroom

P1.01	Jeff Candy (General Atomics)	A New Paradigm for Global Gyrokinetic Turbulence
P1.02	Lanke Fu (PPPL)	Flexible differentiable stellarator coil proxy
P1.03	Alexey Knyazev (Columbia University)	Analysis of Shear Alfvén Wave-Induced Fast Ion Losses in Optimized Stellarators Using Reduced Vorticity Model
P1.04	Fatima Ebrahimi (Princeton Plasma Physics Laboratory)	Extended MHD studies of ELM-free negative triangularity plasmas in DIII-D and the CETOP SciDAC-5 project
P1.05	Chris Hansen (Columbia University)	Machine learning for validation of high-fidelity simulations of ELMs and optimization of ELM-free reactor design
P1.06	Seung-Hoe Ku (Princeton Plasma Physics Laboratory)	Gyrokinetic study of neoclassical and turbulence properties in the negative triangularity edge
P1.07	Andreas Kleiner (Princeton Plasma Physics Laboratory)	Resistive peeling-ballooning modes in MAST/-U
P1.08	Erik Hansen (University of Texas at Austin)	Three Wave Turbulence in Incompressible Hall MHD
P1.09	Sergey Medvedev (Tokamak Energy Ltd)	Beta limits, pedestals and controllability in FPP
P1.10	Bindesh Tripathi (University of Wisconsin-Madison)	Generation of Large-Scale Magnetic Fields by Shear-Flow-Instability-Induced Zonal Flows
P1.11	Elizabeth Paul (Columbia University)	The shear Alfvén continuum of quasisymmetric stellarators
P1.12	Patrick Grate (Princeton University)	Sites of Magnetic Reconnection in Nonaxisymmetric Global Modes
P1.13	Katia Camacho Mata (Type One Energy)	Stellarator Optimization Program at Type One Energy
P1.14	Samuel Frank (Realta Fusion)	Realta Fusion's Axisymmetric Mirror Integrated Modeling Program
P1.15	Kun Huang (The University of Texas at Austin)	The marginally stable state of runaway electrons controlled by self-excited waves
P1.16	Alessandro Cardinali (CNR Istituto Sistemi Complessi)	Non-thermal Fusion Burning Processes in Highly Confined Plasmas
P1.17	Evdokiya Kostadinova (Auburn University)	Studying Nonlinear Electron Diffusion in Magnetized Plasma Using Linear Operators in Hilbert Space
P1.18	Ben Zhu (Lawrence Livermore National Laboratory)	Bifurcation and hysteresis in global and local edge turbulence simulations

P1.19	Jessica Eskew (Auburn University)	Energetic Electron Diffusion During Magnetic Island Bifurcation in DIII-D
P1.20	Samuel Freiberger (Columbia University)	Application of system identification methods to nonlinear MHD simulations of magneto-curvature and magnetorotational instabilities
P1.21	David Arnold (Columbia University)	Simulations of sawtoothing activity with a resistive wall in the HBT-EP tokamak
P1.22	Klissman Franco (University of Wisconsin-Madison)	Computations of Macroscale Dynamics in the Ultra-low Safety Factor regime
P1.23	Stuart Benjamin (Massachusetts Institute of Technology)	Macroscopic trends of neoclassical tearing stability in high-field H-mode tokamak pilot plants
P1.24	Leonhard Leppin (The University of Texas at Austin)	Towards pedestal profile predictions with quantified uncertainty
P1.25	Sanket Patil (University of Wisconsin-Madison)	Extended MHD modeling of stellarators using NIMSTELL*
P1.26	Dylan Brennan (Brennan Fusion Research)	Calculating the probability of locking to an error field for a saturated magnetic island surrounded by a resistive wall
P1.27	Yashika Ghai (Oak Ridge National Laboratory)	Modelling Runaway electrons-Whistler wave interactions using KORC-AORSA model
P1.28	Rahul Gaur (Princeton University)	Some trends in omnigenity
P1.29	Christopher McDevitt (University of Florida)	Predictive Modeling of Energetic Particles Using Physics-Informed Neural Networks
P1.30	Omar Lopez (Oak Ridge National Laboratory)	Ensuring accurate runaway electron current deposition in the post-disruption plateau via orbit-averaging
P1.31	Jeffrey Freidberg (MIT)	A Golden Oldie: An MHD Topping Cycle for a Nuclear Power Plant
P1.32	Norman Cao (University of Texas at Austin)	Stochastic Lagrangian Formulations of Transport in Coherent Structure Dominated Turbulence
P1.33	Myriam Hamed (The university of Texas)	Gyrokinetic Analysis of Microtearing Modes in Varying Parameter Regimes Using Local and Global Simulations
P1.34	Alexandra Lachmann (Columbia University)	Weighted Birkhoff Averaging for Measuring Energetic Particle Integrability
P1.35	Hyder Abdullah (Columbia University)	Shear Alfvén continuum and gaps in stellarator equilibria
P1.36	Amelia Chambliss (Columbia University)	Quadratic flux-minimizing maps for characterization of energetic particle transport mechanisms in quasihelical and quasiaxisymmetric stellarators
P1.37	HYOJONG LEE (Hanyang University)	Investigating the Poloidal Structure of Impurity Density in Tokamak Plasmas using a 2D Fluid Transport Model
P1.38	Elena Belova (PPPL)	Nonlinear simulations of TAEs in NSTX-U
P1.39	Mohammed Haque (Columbia University)	Optimization for Quasi-Poloidal Symmetry

P1.40	Antoine Baillod (Columbia University)	Enhancing Stellarator Accessibility through Port Size Optimization
P1.41	Alexander Haywood (Princeton University)	Non-ideal stability analysis of differentially rotating disks with global curvature effects
P1.42	Timothy Stoltzfus-Dueck (PPPL)	Role of a strong azimuthal magnetic field in centrifugal-mirror confinement
P1.43	Richard Nies (Princeton University / PPPL)	Theory of extended modes at low magnetic shear
P1.44	Silvia Trinczek (Princeton Plasma Physics Laboratory)	Neoclassical transport in the plateau regime in tokamak pedestals
P1.45	Thomas Foster (Princeton University)	Alpha-particle orbits near rational flux surfaces in stellarators
P1.46	Alexandre Sainterme (Princeton University)	Flow-driven, non-axisymmetric Hall-MHD instabilities
P1.47	Euichan Jung (Princeton Plasma Physics Laboratory)	Orbit Confinement and Neoclassical Transport in the Collisionless Scrape-Off Layer of Tokamaks
P1.48	Jungpyo Lee (Hanyang University)	Impact of transport ordering breakdown on impurity transport and bootstrap currents in a tokamak
P1.49	Neeraj Kumar (General Fusion Inc.)	Gyrokinetic Simulations of High Collisionality PI3 Spherical Tokamak Plasmas
P1.50	Hongxuan Zhu (Princeton University)	Global eigenmode structure of linear drift-wave instabilities on flux surfaces in stellarators
P1.51	Runlai Xu (Princeton University)	Role of Magnetic Shear in ITG-Turbulent Tokamaks and Quasi-Axisymmetric Stellarators: A Comparative Study
P1.52	Zheng Yang Tan (University of Maryland College Park)	Gyrokinetic study of the interchange instability
P1.53	Edward Tocco (University of Maryland)	Transport model for a rotating magnetic mirror
P1.54	Matt Landreman (University of Maryland)	How does ion temperature gradient turbulence depend on magnetic geometry? Insights from data and machine learning