The 2025 Sherwood Conference, Poster Session 3

Date: Tuesday, April 8, 2025 Time: 4:00 PM - 6:00 PM Location: Grand Ballroom

P3.01	Wrick Sengupta (Princeton	Theory of ridges in compact quasi-axisymmetric
	University)	devices
P3.02	Stefan Buller (Princeton	Quasi-axisymmetric stellarators optimized for ideal-
	University)	ballooning stability
P3.03	Jessica Li (Princeton Plasma	Total-f global simulations of core turbulent transport
	Physics Laboratory)	behavior in negative triangularity tokamaks
P3.04	Ehab Hassan (Oak Ridge	Design High-Performance MHD-Stable Non-Inductive
	National Laboratory)	Plasma Scenarios and Optimize Toroidal and Poloidal
		Field Coils using FREDA WDM Framework
P3.05	Carl Sovinec (University of	Recent NIMSTELL development and first nonlinear
	Wisconsin-Madison)	results
P3.06	Joseph Jepson (Columbia	NIMROD simulations of high beta MAST-U shots in
	University)	support of Disruption Event Characterization and
		Forecasting (DECAF)
P3.07	Francois Waelbroeck (Univ.	Compressible theory of unmagnetized islands in
	Texas at Austin)	inhomogeneous plasma
P3.08	Ethan Skeens (California State	Reproducing Microtearing Mode Instabilities in the H-
	University, Stanislaus)	mode Tokamak Pedestal Using GPR Profile Fitting
P3.09	Aaron Tran (University of	Drift-cyclotron loss-cone instability in 3D kinetic-ion
	Wisconsin–Madison)	simulations of WHAM
P3.10	Robert Hager (Princeton	Gyrokinetic simulation of peeling-ballooning mode
	Plasma Physics Laboratory)	physics with XGC
P3.11	Jack Gabriel (William & Mary)	Benchmarking continuum kinetic neutral code with
		DEGAS2
P3.12	David Hosking (Princeton	Metastable states of a rotating Z-pinch
	University)	
P3.13	Xu Chu (Princeton	Nonlinear Saturation of Ballooning Modes in
	University/PPPL)	Stellarators
P3.14	Richard Sydora (University of	Modeling of the thermal wave field in inhomogeneous
	Alberta)	magnetized plasmas and determination of the
		anisotropic thermal diffusivity
P3.15	Bodhi Biswas (Realta Fusion)	Fokker-Planck modeling of WHAM plasmas with edge
		neutral charge exchange
P3.16	Manaure Francisquez	Neutral-induced fluidization of a kinetic SOL with
	(Princeton Plasma Physics	lithium-lined walls
	Laboratory)	
P3.17	Djin Patch (UW Madison)	Optimizing Coils for a MHD Stable Low-Drift Magnetic Mirror

P3.18	Antoine Hoffmann (Princeton	Validation of Gkeyll gyrokinetic turbulence simulations
	Plasma Physics Laboratory)	against TCV experimental data and triangularity
	, , , , , , , , , , , , , , , , , , , ,	physics
P3.19	Tajinder Singh (Lehigh	Nonlinear gyrokinetic simulations of microtearing
	University)	modes in NSTX and NSTX-U plasmas
P3.20	Nikolai Gorelenkov (PPPL,	HOW TO SIMULATE LONG TERM FAST ION
	Princeton University)	RELAXATION IN TOKAMAK MEDIATED BY ALFVÉN
		INSTABILITIES
P3.21	Tommaso Barberis (Princeton	Reduced model for the saturation of energetic-
	Plasma Physics Laboratory)	particle-driven instabilities limited by self-generated
		zonal modes
P3.22	Eamon Hartigan-O'Connor	Evolution of AE and beat-driven ZF amplitudes with a
	(Princeton University)	time-dependent turbulent effective scattering
P3.23	Emma Devin (Princeton	Saturation of discrete driven kinetic instabilities
	Plasma Physics Laboratory)	arbitrarily near or far from marginal stability
P3.24	Andrew Ware (University of	Magnetohydrodynamic equilibrium of stellarator fusion
	Montana)	energy systems
P3.25	Noah Mandell (Type One	Turbulence-based predictions of core plasma
	Energy Group)	performance for the Infinity Two stellarator Fusion Pilot
		Plant
P3.26	Atul Kumar (Oak Ridge	Plasma-Material Interaction Modeling for High-Power
	National laboratory)	Helicon Operation in DIII-D Using STRIPE
P3.27	Arnaud Jonathan (University of	Leveraging Physics-Constrained Deep Learning to
	Florida)	Accelerate Integrated Modeling of Tokamak
		Disruptions.
P3.28	Li Nami (Lawrence Livermore	Investigating Zonal Flow and Field in ELM Crashing
	National Laboratory)	Dynamics Using the Hypre 3D Solver within the
_		BOUT++ framework
P3.29	Jace Waybright (Princeton	Neoclassical, viscous, and flow effects on the
	Plasma Physics Laboratory)	resonant layer responses to non-axisymmetric
		magnetic perturbations
P3.30	Qile Zhang (Los Alamos	Self-mediation of runaway electrons via self-excited
	National Laboratory)	wave-wave and wave-particle interactions
P3.31	Allen Boozer (Columbia	Information obtained from efficient analyses of
	University)	magnetic field lines
P3.32	Peter Catto (MII Plasma	What Landau missed
DA A A	Science and Fusion Center)	
P3.33	Harry Dudding (UKAEA (United	Applying the method of multiple scales to the Vlasov-
	Kingdom Atomic Energy	Maxwell system
DQ Q 4	Authority))	
P3.34	Nadir Jeevanjee (GFDL)	New Insights into the CO2 greenhouse effect
P3.35	Jonathan Menard (Princeton	Open science issues for high-performance steady-
D0.00	Plasma Physics Laboratory)	state fusion pilot plants
P3.36	Chris Salvino (Lunar Helium-3	Lunar Helium-3 Mining: Educating on He-3 as a
1		
D0.07	Mining, LLC)	Practical Fuel Source for Fusion Energy

P3.38	Zhenyu Wang (Institute of	Full-f 6D particle-in-cell simulations of quasi-kinetic
	Plasma Physics, CAS)	equilibrium and instability under spatial
		inhomogeneity
P3.39	Yanzeng Zhang (Los Alamos	Distinct parallel electrostatic collisionless shocks in
	National Laboratory)	hot-cold ablative mixing plasmas
P3.40	Julio Herrera-Velázquez	Contributions to magnetic helicity in flux tubes due to
	(Universidad Nacional	torsion and writhe.
	Autónoma de México)	
P3.41	Shahinul Islam (Lawrence	Self-consistent simulation of edge plasma transport
	Livermore National	with lithium sources
	Laboratory)	
P3.42	llon Joseph (Lawrence	Guiding Center Theory for Strong Shear Flows in
	Livermore National Lab)	General Magnetic Field Geometry
P3.43	Wallace Manheimer (Retired	Pure Fusion and Fusion Breeding, MFE and IFE
	from NRL)	
P3.44	Jesus Ramos (Universidad	Two-dimensional model of the ion-temperature-
	Carlos III de Madrid)	gradient instability
P3.45	Alexander Rechester (Institute	Machine Learning and Symbolic Dynamics Applied to
	Of Nonlinear Science	Tokamak Turbulence
	Applications)	
P3.46	Alexander Rechester (Institute	Symbolic Coarse-Graining
	Of Nonlinear Science	
	Applications)	
P3.47	Adelle Wright (University of	Dynamics and accessibility of three-dimensional
	Wisconsin - Madison)	plasma states
P3.48	Fu Yichen (Lawrence	Energy-Momentum-Conserving SDE and Algorithms for
	Livermore National	Nonlinear Landau-Fokker-Planck Equation
	Laboratory)	