

28th Workshop on MHD Stability Control					
ID	Start	End	Thursday 10/3	Friday 10/4	Saturday 10/5
Reception	8:30	9:00	Yang	Kostadinova	Kostadinova
Morning #1	9:00	10:30	Berkery Wong Pankin Vacant	Dudkovskaia (R) Benjamin Hanson (R) Boyes	Boozer Guazzotto Elster Reiman (R)
Coffee #1	10:30	11:00			
Morning #2	11:00	12:30	Myers Turco (R) Barada Orlov	Rothstein Benedett Van Mulders Xie	Yang All
Lunch	12:30	14:00			
Afternoon #1	14:00	15:30	Hurst Takemura Chandra Levesque	Poster / Tour	Adjourn
Coffee #2	15:30	16:00			
Afternoon #2	16:00	17:30	Sabbagh Tobin Buston Ramirez Lee		
Auburn, Alabama: October 3-5, 2024					
Invited talks	22 minutes	Uninterrupted			
Contributed talks	14 minutes	Uninterrupted			
Discussions	26 minutes	On all previous talks, including clarifying questions			
Reception	30 minutes	Talks from the organizers with light breakfast served in the back of the room			
Lunch	90 minutes	Use badges to get free lunch from the cafeteria on weekdays Lunch box will be served on Saturday			
Session title	Talk title		Chair	Assistant chair	
Session #1-1	9:00	10:30	Thursday	Levesque	Yang
Berkery	Stability Considerations for a Spherical Tokamak Advanced Reactor				
Wong	Fishbone Instabilities and Their Impacts on Core Confinement in MAST and MAST-U				
Pankin	Predicting ELM Stability in Spherical Tokamaks Using the Extended MHD NIMROD and M3D-C1 Codes				
Vacant					
Session #1-2	11:00	12:30	Thursday	Berkery	Benedett
Myers	Nonlinear Coupling of Core-resonant Tearing Modes and Edge Fluctuations in QH-mode Plasmas in DIII-D				
Turco	Radiation Induced Non-linear Oscillations in ITER Baseline Scenario Plasmas in DIII-D				
Barada	ELM-free High Confinement Regime Obtained and Sustained in the Presence of a Benign $m/n=-4/-1$ Locked Mode in DIII-D				
Orlov	Advancements in KSTAR 3D Edge Long-Pulse Tokamak Scenarios with Instability & Transport Control				
Session #1-3	14:00	15:30	Thursday	Hansen	Myers
Hurst	MHD Behavior of Non-disruptive MST Tokamak Plasmas up to Ten Times the Greenwald Limit				
Takemura	Hysteresis in Mode Frequency Behavior during Acceleration and Deceleration in LHD				
Chandra	Dependence of Wall Stabilization and q_a on Sawtooth Triggering of Saturated 2/1 Tearing Modes from a Coupled Kink-tearing Mode in HBT-EP				
Levesque	MHD Activity during Initial Operation of the Runaway Electron Mitigation Coil (REMC) in HBT-EP				
Session #1-4	16:00	17:30	Thursday	Howell	Van Mulders
Sabbagh	Expanded Tokamak Disruption Event Characterization and Forecasting Research and Investigation of High Beta Plasmas in MAST-U				
Tobin	Multi-tokamak Application of a VDE Forecasting Approach for Disruption Avoidance using DECAF				
Buston Ramirez	Study of Electron Temperature Profile Evolution as a Plasma Disruption Predictor through Disruption Event Characterization and Forecasting (DECAF) Analysis				
Lee	Investigation of Tokamak Control Leveraging Disruption Event Characterization and Forecasting (DECAF) in KSTAR				

Session title	Talk title			Chair	Assistant chair
Session #2-1	9:00	10:30	Friday	Navratil	Zamkovska
Dudkovskaia	Neoclassical Tearing Mode Physics in the Presence of Impurity Ions				
Benjamin	Towards Robust Asymptotic Equilibrium Behavior for Spectral 3D MHD Codes				
Hanson	Simulating Feedback-controlled Error Field Correction				
Boyes	Ideal Kink Stability of Negative Triangularity Plasmas				
Session #2-2	11:00	12:30	Friday	Orlov	Yang
Rothstein	Leveraging Automated Equilibria on MHD Stability Analysis and ML-based Active Tearing Mode Suppression in DIII-D				
Benedett	Exploring Trends in Faraday-effect Polarimetric Measurements of the DIII-D Tokamak Core Magnetic Fields for Reactor-relevant Diagnostic and Control Applications				
Van Mulders	Improved Reconstruction of Plasma Profiles and Equilibrium through Dynamic State Estimation: from TCV and AUG to ITER				
Xie	Startup Runaway Electron Evolution and Interaction with MHD				
Session title	Poster title				
Poster	14:00	17:30	Friday		
Butt	3D Plasma Response Investigation of Operational Space Expansions using a Self-consistent Integrated Modeling Framework				
Chiriboga	Development of an $n = 1$ Optical Mode Tracking Feedback Control System on HBT-EP using a Deep Learning Neural Network				
Da Silva	Experimental Study of the Toroidal Distribution of Energetic Electron Loss in the Presence of a Runaway Electron Mitigation Coil (REMC)				
Farre Kaga	Physics and Statistical Analysis of Machine Learning-based Tearing Mode Prediction, with Application to Experimental Tearing Mode Suppression in the DIII-D Advanced Inductive Scenario				
Khavin	Development of ECE-I and ECE Synthetic Diagnostics in NIMROD				
Zamkovska	A Cross-machine Model for Halo Current in DECAF as a Criterion for Deployment of Disruption				
Session title	Talk title			Chair	Assistant chair
Session #3-1	9:00	10:30	Saturday	Logan	Yang
Boozer	Electric Field Effects during Disruptions				
Guazzotto	Cylindrical Viscous Boundary Layer For Transonic Equilibrium				
Elster	Two-Fluid Effects on Linear Tearing Mode Stability				
Reiman	Development of a reliable quantitative prediction capability for magnetic island stabilization and destabilization will require experimental data from systematic parameter scans				
Session #3-2	11:00	12:30	Saturday		
Yang	Metrics for Progress in Tokamak Stability Control				
All	Metrics for Progress in Tokamak Stability Control, Group Discussion				