

28th Workshop on MHD Stability Control					
ID	Start	End	Thursday 10/3	Friday 10/4	Saturday 10/5
Reception	8:00	8:30	Yang	Kostadinova	Kostadinova
Morning #1	8:30	10:00	Berkery Wong Pankin Takemura	Hurst Orlov Chandra (R) Levesque	Boozer Guazzotto Elster Reiman (R)
Coffee #1	10:00	10:30			
Morning #2	10:30	12:00	Myers Turco (R) Navratil Barada Jiang (R)	Rothstein Benedett Van Mulders Xie	Yang All
Lunch	12:00	13:30			
Afternoon #1	13:30	15:00	Dudkovskaia (R) Benjamin Boyes Hanson (R)	Poster / Tour Venue: Leach Science Center	Adjourn
Coffee #2	15:00	15:30			
Afternoon #2	15:30	17:00	Sabbagh Tobin Buston Ramirez Lee		
Venue			Melton Student Center	Auburn University Hotel	
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	Cafeteria on Thursday, use badges as ID. Delivered on Friday and Saturday			
Session title	Talk title	Chair		Assistant chair	
Experiments A	8:30	10:00	Thursday	Levesque	Yang
Berkery Wong Pankin Takemura	Stability Considerations for a Spherical Tokamak Advanced Reactor Fishbone Instabilities and Their Impacts on Core Confinement in MAST and MAST-U Predicting ELM Stability in Spherical Tokamaks Using the Extended MHD NIMROD and M3D-C1 Codes Hysteresis in Mode Frequency Behavior during Acceleration and Deceleration in LHD				
Experiments B	10:30	12:00	Thursday	Berkery	Benedett
Myers Turco → Navratil Barada Jiang	Nonlinear Coupling and Interactions with Tearing Modes in QH-Mode Evolution in DIII-D Non-linear oscillations and MHD activity in the ITER Baseline Scenario in DIII-D ELM-free High Confinement Regime Obtained and Sustained in the Presence of a Benign m/n=-4/-1 Locked Mode in DIII-D Error field identification with rotating RMP fields				
Simulation	13:30	15:00	Thursday	Hansen	Myers
Dudkovskaia Benjamin Boyes Hanson	Neoclassical Tearing Mode Physics in the Presence of Impurity Ions Towards Robust Asymptotic Equilibrium Behavior for Spectral 3D MHD Codes Ideal Kink Stability of Negative Triangularity Plasmas Simulating Feedback-controlled Error Field Correction				
Special: DECAF	15:30	17:00	Thursday	Howell	Van Mulders
Sabbagh Tobin Buston Ramirez Lee	Expanded Tokamak Disruption Event Characterization and Forecasting Research and Investigation of High Beta Plasmas in MAST-U Multi-tokamak Application of a VDE Forecasting Approach for Disruption Avoidance using DECAF Study of Electron Temperature Profile Evolution as a Plasma Disruption Predictor through Disruption Event Characterization and Forecasting (DECAF) Analysis Investigation of Tokamak Control Leveraging Disruption Event Characterization and Forecasting (DECAF) in KSTAR				

Session title	Talk title			Chair	Assistant chair
Experiments C	8:30	10:00	Friday	Navratil	Zamkovska
Hurst	MHD Behavior of Non-disruptive MST Tokamak Plasmas up to Ten Times the Greenwald Limit				
Orlov	Advancements in KSTAR 3D Edge Long-Pulse Tokamak Scenarios with Instability & Transport Control				
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				
Experiments D	10:30	12:00	Friday	Orlov	Eskew
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	13:30	17:00	Friday		
Andrew	Using Nonextensive Statistics and Spectral Theory to Characterize Anomalous Diffusion in Fusion Plasmas				
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)				
DeGrandchamp	MHD phenomenology of recent high q_{min} plasmas in DIII-D				
Eskew	The Role of Island Bifurcation on Deconfinement of Energetic Electrons				
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				
Kostadinova	Mechanisms for electron trapping and acceleration in magnetic islands				
Messenger	Investigation of plasma disruptions in the Compact Toroidal Hybrid (CTH) Device				
Zamkovska	A Cross-machine Model for Halo Current in DECAF as a Criterion for Deployment of Disruption				
Session title	Talk title			Chair	Assistant chair
Theory	8:30	10:00	Saturday	Logan → Yang	Andrew
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				
Special: TRL	10:30	12:00	Saturday		
Yang	Metrics for Progress in Tokamak Stability Control				
All	Metrics for Progress in Tokamak Stability Control, Group Discussion				