

21st MHD Stability Control Workshop: Prediction and Forecasting of Transient Events					
8:00	Registration	Rob La Haye		Building 7 Room 217	
8:30	Welcome & Announcements	Matthew Lanctot Dr. Tony Taylor Rob La Haye Matthew Lanctot		Program Chair Vice President of the Magnetic Fusion Energy Division at General Atomics Local Announcements Agenda	
No.	Start Time	Session Title	Presenter or Chair	Affiliation	Topics
1		Tokamak Disruption Prediction	Matthew Lanctot		
	8:50		Steven Sabbagh (I)	Columbia	Disruption Event Characterization and Forecasting in Tokamaks
	9:25		Jack Berkery	Columbia	Resistive Wall Mode Stability Physics and Forecasting in NSTX/NSTX-U
	9:50		Francesco Volpe	Columbia	Passive, active and feedback stabilization of thick flowing liquid metal walls
	10:15	Coffee break			
	10:45		Alessandro Pau (I)	Univ. of Cagliari, Italy	A machine-learning approach for disruption prediction
	11:20		Christina Rea	MIT	Database development for cross-device machine-learning studies on real-time disruption warning
	11:45		Matthew Parsons (I)	PPPL	Advanced statistical analysis of disruption databases
	12:20	Lunch			
2		Taming tearing	Jeremy Hanson		
	13:40		Richard Fridström (I)	KTH	Tearing mode dynamics and locking in MST
	14:15		Sadao Masamune	Kyoto Institute of Technology	Locking and uncloning of tearing modes in a low-aspect-ratio RFP
	14:40		Huihui Wang (I)	ASIPP	Error field sensitivities in tokamaks
	15:15		Tomas Markovic	COMPASS	Critical RMP Field and Magnetic Island Amplitude Prior to Disruption on The COMPASS Tokamak
	15:40		Matthew Beidler	UW	Visco-Resistive MHD Modeling Benchmark of Forced Magnetic Reconnection
	16:05	Coffee break			
3		Transients in 3D Configurations	Matthew Lanctot		
	16:35		Satoshi Ohdachi (I)	NIFS	MHD instabilities in stellarators
	17:10		Takemura Yuki	NIFS	Study of locked mode like instability on LHD
	17:35		Jeffrey Herfindal	Auburn University	Effects of stellarator transform on sawtooth oscillations in CTH
	18:00	Close			
	18:20	Tour of DIII-D			
Day 2: Building 7 Room 217					
4		Predicting the Boundaries of Plasma Stability	Andrew Cole		
	8:00		Dov Rhodes (I)	Columbia	Shaping effects on stability limits and control of resistive-plasma resistive-wall modes
	8:35		Allan Glasser	FTCI	Recent Progress on the DCON Code
	9:00		Jeremy Hanson	Columbia	Stability of DIII-D negative central shear discharges
	9:25		Alexander Glasser	PPPL	Development of Fast Ideal MHD Stability Calculations for Real-time Applications
	9:50		Thomas Blanken (for Chiara Piron (I))	Consorzio RFX	Model-based real-time scenario monitoring for transient event prediction with RAPTOR
	10:25	Coffee break			
5		Active Mode Control	Gerald Navratil		
	10:55		Enzo Lazzaro	Istituto di Fisica del Plasma IFP-CNR	Physics conditions for robust control of tearing modes in a rotating tokamak plasma
	11:20		Michio Okabayashi	PPPL	Preliminary analysis of transient event at unlocked neoclassical tearing mode by electromagnetic torque feedback
	11:45		Mitchell Clement	Columbia	MHD control experiments and simulations using VALEN-based feedback on DIII-D
	12:10	Lunch			
6		3D Plasma Response	Rob La Haye		
	13:30		Shibata Yoshihide	NIT, Gifu College	Study of the plasma response on external RMP field in a small tokamak device
	13:55		Carlos Paz-Soldan	GA	Equilibrium drives of the n=2 plasma response
	14:20		Zhirui Wang	PPPL	Nyquist analysis of plasma response
	14:45		David Weisberg	ORISE/GA	Optimization of applied non-axisymmetric magnetic perturbations using multimodal plasma response on DIII-D
	15:10		Allan Reiman	PPPL	Resonant Pressure Driven Currents Near Magnetic Islands in 3D MHD Equilibria
	15:35	Coffee break			
7		Transients at high beta	Carlos Paz-Soldan		
	16:05		Zane Taylor (I)	ORISE/GA	Interaction of multiple MHD modes as the origin of the hybrid scenario in DIII-D
	16:40		Andreas Bierwage (I)	QST	Shear Alfvén and ion sound waves in high-beta tokamak plasmas
	17:15	Panel Discussion			
	17:45	Group Discussion	Richard Buttery		Tearing Stability in the ITER Baseline Scenario
	18:15	Close			
	19:30	Banquet			Location: Il Fornaio Del Mar
Day 3: Building 7 Room 120					
8		3D Fields and Disruption Physics	Michio Okabayashi		
	8:00		Edward Strait	GA	Summary of ITPA-MHD group meeting
	8:35		Marco Gobbin (I)	Consorzio RFX	Effects of 3D fields on disruption generated runaway electrons in AUG, TCV and RFX-mod
	9:10		Thomas Blanken	Eindhoven University of Technology	Model-based estimation and control of the particle density on TCV and ASDEX-Upgrade
	9:35		Brendan Lyons	ORISE/GA	Effect of rotation zero-crossing on plasma response to 3D magnetic perturbations
	10:00		Francesca Turco	Columbia	Progress on the stability of the ITER Baseline Scenario in DIII-D
	10:25	Coffee break			
	10:55		Shizuo Inoue (I)	QST	Nonlinear MHD simulation of active control of locked modes
	11:30		Wilkie Choi	Columbia	Locked mode entrainment with synchronized ECCD deposition
	11:55		Clayton Myers (I)	PPPL	A multi-machine analysis of non-axisymmetric and rotating halo currents
	12:30	Discussion of 2016 Workshop	John Sarff		
	12:45	Close	Matthew Lanctot		

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