

AGENDA

16th Workshop on MHD Stability Control: Optimizing and Understanding the Role of Coils for Mode Control

General Atomics, San Diego, CA

Sunday, November 20 - Tuesday, November 22

Sunday

8:00-8:45

Check-in (Pay \$60 fee)

Coffee, Tea, Juice, Donuts and Bagels During Check-in (No Morning Break)

8:45-8:50

Dave Hill - Rob

Welcome and announcements

8:50-9:30

Jerry Navratil

Stability Control Challenges for Future Devices

Session 1

Chair: Michio

Tearing Modes, Plasma Response and Codes

Okabayashi

9:30-10:10

Lorenzo Frassinetti

EXTRAP Coils and Tearing Mode Dynamics

10:10-10:35

Hugo van den Brand

Consequences of Mode Locking for Requirements on Real-time NTM Control in ITER

10:35-11:15

Nate Ferraro

Physics of Tearing Mode Response to 3D Fields

11:15-11:40

Yongkyoon In

Plasma Response Based EFC Strategy

11:40-12:05

Amiya Sen

Feedback Control of Major Disruptions in ITER

12:05-1:20

Boxed Lunches Provided on Sunday as Part of Registration Fee

1:20-2:00

Carl Sovinec

NIMROD Applications for MHD Control

Session 2

Chair: Ted Strait

Locked Modes, RWM Physics

2:00-2:40

Yoshiro Narushima

Mode Locking in LHD

2:40-3:05

Yuki Takemura

Experimental Study of MHD Rotation in the Edge Plasmas of LHD

3:05-3:30

Jack Berkery

RWM stabilization physics via kinetic effects in NSTX

3:30-4:00

Coffee Break

Session 3

Chair: Andrew Cole

Panel Session: Error Field Correction

4:00-4:10

Andrew Cole

Introduction to Panel Session & Key Questions

4:10-4:50

Allen Boozer

Strategy for Correcting Magnetic Field Errors

4:50-5:15

Mike Schaffer

Results from New Error Control Experiments in DIII-D

5:15-5:40

Richard Buttery

Understanding the Limits of Error Field Correction

5:40-6:10

Andrew Cole

Panel discussion on "How do residual error fields brake the plasma?"

(moderator)

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8:20-9:00

Joe Snipes

Prospects for Use of Internal and External Coils on ITER

Session 4

Chair: Jong-Kyu Park

RWMs and Error Field Penetration

9:00-9:40

Jeremy Hanson

Uncovering RWM Stability Limits in Tokamaks

9:40-10:05

Steve Sabbagh

RWM Stabilization with State-space Control and Multi-component Sensors on NSTX

10:05-10:30

Zhirui Wang

Physical Understanding on RWM Stabilization in RFP - Passive and Active Stabilization

10:30-11:00

Coffee Break

11:00-11:25

Carlos Paz-Soldan

Stabilization of the RWM and Error Field Reduction by a Rotating Conducting Wall

11:25-11:50

Jeff Levesque

Recent RWM Experiments on HBT-EP

11:50-12:15

Matteo Baruzzo

RWM Control Studies on RFX-mod with a Limited Set of Active coils: Experimental Results and Closed Loop Modeling

12:15-1:20

Group Photo and Lunch (not included in fee) at Cafeteria

1:20-2:00

Richard Fitzpatrick

Scaling of the EF Penetration Threshold in Low Density Ohmically Heated Tokamak Plasmas

Session 5

Chair: P. Martin

RFPs for Tokamak Studies

2:00-2:40

Paolo Zanca

Low-q Tokamak Mode Control in RFX-mod

2:40-3:05

Roberto Paccagnella

Is a Low q Low Confinement Tokamak Reactor Envisageable?

3:05-3:30

Francesco Volpe/remote

Error Field Assessment from Driven Rotation of Stable RWMs at Extrap-T2R

3:30-4:00

Coffee Break

Session 6

Chair: Richard Buttery

Panel Session: Application of Coils in General

4:00-4:10

Richard Buttery

Introduction to Panel Session & Key Questions

4:10-4:50

Wolfgang Suttrop

Results from the New Non-Axisymmetric Coils on ASDEX Upgrade

4:50-5:05

Steve Sabbagh

Importance of ITER In-vessel Control Coils in Meeting Device Goals

5:05-5:30

Erik Olofsson

EXTRAP T2R Coils and Resistive Shell Magnetohydrodynamics

5:30-6:10

YoungMu Jeon

Aspects and Applications of Non-Axisymmetric Coils on KSTAR

6:10-6:40

R. Buttery (moderator)

Panel discussion on "For what functions are the internal coils essential on ITER?"

7:30

Workshop Dinner, Optional (Not Included in Fee), Restaurant Il Fornaio (Signup)

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8:00-8:45

John Wesley

Disruption & Runaway Control on DIII-D

Session 7

Chair: David Maurer

Special Topics

8:45-9:10

Steve Knowlton

Disruption Control Using External Transform on CTH

9:10-9:35

Samuel Lazerson

3D Equilibrium Reconstruction on the Large Helical Device

9:35-10:15

Arthur Weller

On High Beta MHD in Stellarators

10:15-10:40

Lidia Piron

Optimization of Helical Equilibria with 3D BC in RFX-mod

10:40-11:10

Coffee Break & Opportunity to Pick Up a Lunch in the Cafeteria

11:10-11:35

Jim Hanson

Equilibrium Reconstruction without Axisymmetry

11:35-12:00

Ming Tingfeng

Edge MHD Mode Structure and Effect from the Externally Applied Magnetic Field in LHD

12:00-12:25

Jong-Kyu Park

Active Control of Rotating Edge Modes Using HHFW Antenna in NSTX

Session 8

Chair: Rob La Haye

Wrapping Up (No Lunch Break)

12:25-12:50

Ted Strait

Summary of the ITPA MHD meeting at Padua

12:50-1:00

Rob La Haye

Feedback on the Workshop and Discuss Next Year (Format, Committee, etc.)

1:00-1:05

Richard Buttery

Results of Polling on 2013 and Beyond

1:05-1:15

Michio Okabayashi

Announcement of next US-Japan MHD workshop, Toki, Japan, March 2012

1:15-1:30

Jerry Navratil

Next MHD Control Workshop: Theme and location proposal

1:30

End (*Cafeteria Closes Doors at 1:30*)

1:45

Tour of DIII-D (Signup)