

**Max-Planck/Princeton Center for Plasma Physics
General Meeting
Princeton Center for Theoretical Physics
Princeton University
October 30 – November 1, 2013**

Wednesday, October 30

7:15 Shuttle pick-up at Sonesta to Westin

7:30 Shuttle pick-up at Westin Hotel to Princeton University - Jadwin Hall

8:30 Welcome and Introduction S. Prager, S. Gunter

Turbulence

9:00 Recent results, current challenges, future plans G. Hammett, F. Jenko

10:00 Break

10:20 Fluid simulations and drift-wave turbulence in LAPD T. Carter

10:50 Development of a discontinuous Galerkin gyrokinetic code A. Hakim

11:20 Flow driven turbulence and instabilities in lab plasmas C. Forest

11:50 Gyrokinetic turbulence in non-axisymmetric geometries P. Helander

12:20 Lunch

1:30 Gyrokinetic turbulence and reconnection: What happens
at the tail of the Goldreich-Sridhar cascade? D. Told

2:00 Properties and reduced models of kinetic turbulence D. Hatch

2:30 Discussion on turbulence

Magnetic Reconnection

3:00 Results, challenge, plans of the reconnection WG J. Buechner, H. Ji
Challenges and Plans

3:45 Break

4:05 Kinetic simulation of reconnection W. Daughton

4:50 Solar reconnection – observations D. Innes

5:20 Solar flares in MRX C Myers

5:50 Adjourn

6:30 Workshop Reception/Dinner – Prospect House, Princeton University

9:00 Shuttle departure to the Westin Hotel/Sonesta

Thursday, October 31

7:15 Shuttle pick-up at Sonesta Hotel to Westin Hotel

7:30 Shuttle pick-up at Westin Hotel to Princeton University – Jadwin Hall

8:30 Simulation of solar eruptions S. Bingert

9:00 Multi-island reconnection A. Bhattacharjee

9:30 EMHD reconnection and suggestions for experiments N. Jain

10:00 Break

10:20 Sawtooth reconnection at high S S. Gunter

10:50 Guide field effects and turbulence effects in Vineta O. Grulke
 11:20 Discussion on reconnection
 11:50 Lunch

Energetic Particles

1:00 Overview of energetic particles in fusion plasmas G. Fu, P. Lauber
 1:30 Overview of energetic particles in astrophysical plasmas A. Spitkovsky
 2:00 Stochastic Acceleration in Aligned MHD Turbulence M. Weidl
 2:25 Cosmic ray acceleration in astrophysical shocks D. Caprioli
 2:50 Energetic particles in Earth's inner magnetosphere J. Johnson
 3:15 Break
 3:35 Nonlinear energetic particle transport in ASDEX-U M. Schneller
 4:00 Passive runaway electron suppression in disruptions H. Smith
 4:25 Discussion on energetic particles

Magnetorotational Instability

4:55 Overview W-C. Muller, J. Stone
 5:35 Adjourn
 5:45 Shuttle departure – to the Westin Hotel/Sonesta

Friday, Nov 1

8:15 Shuttle pick-up at Sonesta Hotel to Westin Hotel
 8:30 Shuttle pick-up at Westin Hotel to Princeton University – Jadwin Hall
 9:00 Dynamos, convection, non-ideal effects in MRI turbulence O. Gressel
 9:40 Signatures of the MRI in the lab and simulations F. Jenko
 10:10 Break
 10:30 Helicity-driven alpha effect in lab and astrophysical plasmas F. Ebrahimi
 11:00 Pegasus: A New Hybrid-PIC Code for Astrophysical Plasma M. Kunz
 Dynamics, featuring the collisionless MRI and driven
 firehose/mirror instabilities
 11:30 Magnetorotational instability in core collapse supernovae: J. Guilet
 influence of the radial entropy gradient
 12:00 Lunch
 1:00 Concluding discussion on each topic
 3:00 Wrap-up: next steps, center organization
Next meeting, website, working group meetings, outreach
 4:00 Close
 4:15 Shuttle departure from Princeton University – Jadwin Hall to Westin/Sonesta

Various airport transfers have been arranged.