Schedule – Harry Petschek Symposium on Magnetic Reconnection

March 21-23, 2006, University of Maryland University College

Tuesday, March 21

7:30 Breakfast

Morning: Session 1: Reconnection: The beginning
8:30 Introduction and logistics
9:00 A. Kantrowitz – The World Needs Many More Harry Petscheks
9:30 G. Parker - Reconnection- Early concepts
10:00 C. Russell - Reconnection- Early observations and controversies
10:30 Coffee Break
11:00 V. Vasyliunas – Harry Petschek and the universality of magnetic reconnection
11:30 K. Schindler – Electric signatures of magnetic reconnection
12:00 discussion: George Siscoe

12:30 Lunch

Afternoon: Session 2: MHD reconnection and the Petschek model
1:30 J. Dorelli – Magnetic reconnection in large systems: flux pileup and the Hall effect
2:00 P. Cassak – Sweet-Parker and Hall reconnection
2:30 M. Kuznetsova: Microphysics in large scale MHD reconnection
3:00 break and Poster Session 1 viewing
4:00 T. Phan - Heliospheric magnetic reconnection
4:30 H. Baty – On the existence of Petschek reconnection for uniform resistivity
5:00 I. Craig – Analytic models of reconnection in three dimensions
5:30 discussion: Michael Hesse
6:00 adjourn

Wednesday, March 22

7:30 Breakfast

Morning: Session 3: Observations of reconnection – Lab and Space
8:30 H. Hudson – Solar evidence for magnetic reconnection
9:00 L. Fletcher – Particle acceleration during solar reconnection
9:30 M. Oieroset – Particle acceleration during magnetotail reconnection
10:00 Y. Ren – Experimental verification of the Hall effect during pull reconnection in MRX
10:30 Coffee Break
11:00 Y. Ono – Transient and intermittent reconnection in the TS-3/4 merging experiments
11:30 S. Fuselier – Magnetopause reconnection
12:00 T. Nagai – Magnetotail reconnection
12:30 discussion: Masaaki Yamada

1:00 Lunch
Afternoon: Session 4: Kinetic reconnection
2:00 W. Daughton – Influence of open boundary conditions on kinetic simulations of magnetic reconnection
2:30 R. Horiuchi – Roles of plasma instabilities and particle kinetic effects in collisionless driven reconnection
3:00 break and Poster Session 2 viewing
4:00 P. L. Pritchett – Kinetic aspects of guide field reconnection
4:30 M. Scholer – Kinetic structure of the reconnection layer
5:00 I. Shinohara - Quick reconnection triggering via the lower hybrid drift instability
5:30 M. Swisdak – Production of energetic electrons during magnetic reconnection
6:00 discussion: Amitava Bhattacharjee

6:30 Conference dinner

Thursday, March 23

7:30 Breakfast

Morning: Session 5: Reconnection in astrophysical systems
8:30 Jim Stone - Magnetic reconnection in accretion disks
9:00 D. Uzdensky – Magnetic reconnection in astrophysical systems
9:30 H. Isobe - Observations and MHD simulations of fine structure in magnetic reconnection in the solar corona
10:00 Spiro Antiochos – The role of reconnection in coronal structures and dynamics
10:30 Coffee Break
11:00 A. Lazarian – stochastic reconnection
11:30 J. Huba – Hall MHD reconnection physics
12:00 discussion: Ethan Vishniac

12:30 Lunch

Afternoon: Session 6: The future of reconnection research
1:30 F. Mozer - Reconnection physics from on-going missions
2:00 J. Burch - The SMART mission and its science objectives
2:30 S. Tsuneta - Science objectives of the SOLAR-B mission
3:00 break and Poster Session 3 viewing
4:00 E. Vishniac - Magnetic reconnection in astrophysical systems – opportunities and challenges
4:30 M. Hoshino - Future theoretical challenges in magnetic reconnection, plasma heating and acceleration
5:00 G. Siscoe - The final word
5:30 conference adjourns
Poster Session 1

1. N. Bessho and A. Bhattacharjee, Fast magnetic reconnection in an electron-positron plasma.
2. D. Winske and L. Yin, Heating at slow shocks.

Poster Session 2

1. J. Egedal, W. Fox, N. Katz and M. Porkolab, Spontaneous reconnection in a laboratory experiment.
2. D. Pontin, 3-D magnetic null points as a site for reconnection.
4. J. Scudder and W. Daughton, PIC analogues of sharp, perpendicular electric fields observed in magnetopause current layers.
5. Y. Song, Parallel electric fields and 3-D Alfvénic reconnection.
7. M. Che, J. F. Drake and M. Swisdak, Buneman turbulence and anomalous resistivity in collisionless magnetic reconnection.

Poster Session 3

1. V. K. Verma, On Solar coronal mass ejection’s origins based on observations by LASCO/SOHO.
3. R. Matsumoto and M. Machida, Global MHD simulations of magnetic reconnection in accretion disks.