

The CAWSES workshop
**Comparative Study of Solar Flares and Magnetospheric Substorms
as a Basis of Space Weather Research**

March 18-20, 2007

Fairbanks Princess Riverside Lodge, Jade Room
(Fairbanks, Alaska)

NOTE:

Asterisks(*) indicate contributed talks (15+5min).

Other talks are invited (25+5min).

[3/18 AM] 1. Introductory Talks

Chair: Takashi Kikuchi

09:00-09:30 Syun Akasofu

Longstanding Unsolved Problems in Solar Physics and Magnetic Physics

09:30-10:00 Kazunari Shibata

Introduction to Solar Flares: Questions from Solar Physicist

10:00-10:30 Bruce Tsurutani

Interplanetary Disturbances and General Space Weather Problems

10:30-11:00 Hirohisa Hara

Hinode Initial Results

11:00-11:30 Natchimuthuk Gopalswamy

Halo coronal mass ejections and their geoeffectiveness

**[3/18 PM] 2. Comparison of Flares and Substorms,
Common Processes?**

Chair: Bruce Tsurutani

~~**13:00-13:30 Terry Forbes**~~

~~Energy Transfer in Solar Flares~~

13:30-14:00 Gordon Rostoker

The Role of Substorms in Influencing Types of Space Weather That Have Damaging
Consequences

14:00-14:30 Haimin Wang

Evolution of Photospheric Magnetic Fields associated with Solar Flares

14:30-15:00 Kiyofumi Yumoto

Substorm onsets obtained from satellite and ground-based observations

***** BREAK (30min) *****

15:30-16:00 Stefaan Poedts

Numerical simulations of the initiation and the IP evolution of coronal mass ejections

16:00-16:30 Joe Kan

Storm and Substorm Driven by Magnetic Reconnection in the Plasma Sheet

16:30-16:50 Takenori Okamoto*

Discovery of cool cloud-like structures in the corona with Hinode Solar Optical Telescope

16:50-17:10 Ryuho Kataoka*

Acceleration mechanisms of radiation belt electrons during magnetic storms driven by CMEs and CIRs

~~**17:10-17:30 Yingna Su***~~

~~Shear Motion of the Footpoints in Two-Ribbon Flares~~

[3/19 AM] 3. What is the role of reconnection in flares/CMEs and substorms?

Chair: Terry Forbes

09:00-09:30 Masayuki Ugai

Modeling of substorms and flares by the fast reconnection mechanism

09:30-10:00 Amitava Bhattacharjee

Role of Collisionless Reconnection in Flares and Substorms: a Comparative Study

10:00-11:30 Masaaki Yamada

Study of Physics of Magnetic Reconnection in Laboratory and Space Plasmas

~~**10:30-11:00 Joachim Raeder**~~

~~On measuring the reconnection rate in magnetosphere simulations~~

11:00-12:30 Mark Linton

Post-CME Reconnection and the Generation of Descending Coronal Voids

[3/19 PM]

Chair: Katsuhide Marubashi

13:00-13:30 Brigitte Schmieder

Coronal loop and chromospheric ribbon motions during slip-running reconnection

13:30-14:00 Masaki Fujimoto

Towards more realistic full particle simulations of magnetic reconnection: Effects of density jump across a current sheet

14:00-14:30 John Gosling

Magnetic Reconnection in the Solar Wind and Within ICMEs

14:30-15:00 Kanya Kusano

The role of magnetic reconnection in the onset of solar flares and CMEs

***** BREAK (30min) *****

15:30-16:00 Lyndsay Fletcher

The solar flare electron number problem - time for a new acceleration scenario?

16:00-16:30 Tatsuki Ogino

Response of the Earth's Magnetosphere to the Strength and Rotation of IMF

16:30-16:50 Hiroaki Isobe*

Magnetic reconnection in solar atmosphere: three-dimensional evolution and fine structures

16:50-17:10 Tohru Shimizu*

MHD study of three-dimensional instability and plasmoid ejections of the spontaneous fast magnetic preconnection

17:10-17:30 Koji Kondoh*

Three dimensional configuration of earthward fast plasma flow in near-Earth plasma sheet

conference dinner

**[3/20 AM] 4. Fundamental processes in solar flares/
interplanetary disturbances/magnetospheric substorms**

Chair: Hugh Hudson

~~**09:00-09:30 Kathy Reeves**~~

~~Observations of Solar Flares and Eruptive Events With the X-Ray Telescope on
Hinode~~

09:30-10:00 Katsuhide Marubashi

Impacts of a torus model on the geometry of magnetic clouds

10:00-10:30 Mitsuo Oka

Particle Acceleration by Shocks

10:30-11:00 Sam Krucker

Coronal Hard X-ray Sources in Solar Flares: new RHESSI results

11:00-11:30 Danny Summers

Wave-particle interactions in the Van Allen radiation belts with implications for space weather science

[3/20 PM]

Chair: Gordon Rostoker

13:00-13:30 Hugh Hudson

White-light flares and why the chromosphere is different from the ionosphere

13:30-14:00 James Chen

Physics of Coronal Mass Ejections: Initiation, Acceleration, and Interplanetary Propagation

14:00-14:30 Yoshiharu Omura

Relativistic Turning Acceleration of Resonant Electrons by Coherent Whistler-Mode Waves in a Dipole Magnetic Field

14:30-15:00 ST Wu

Coupling the photosphere and corona using a data driven 3D MHD model

***** BREAK (30min) *****

15:30-15:50 Satomi Kamei*

Development of global simulation model of the Heliosphere

[3/20 PM] 5. Summary and Discussion

15:50-17:30 Summary talks will be given by Kazunari Shibata, Syun Akasofu, and Bruce Tsurutani.