

SCHEDULE OF THE COLLOQUIUM

Beijing, 1992

SUNDAY, SEPT. 6

- 08:30 AM-04:30 PM **Excursion to the Great Wall and Huairou Solar Observing Station**
 06:30-08:30 PM **Informal Reception**

MONDAY, SEPT. 7

09:00-12:20 AM

Colloquium Session 1: STRUCTURE OF ACTIVE REGIONS

Chairman, H. Zirin

Welcoming Address:

09:00-09:10 Zhou Guangzhao, President, Chinese Academy of Sciences

Speech of Congratulations:

09:10-09:20 Chen Jiaer, Vice President, National Nature Science Foundation of China

Invited Papers:

09:20-09:50 A. Title:

Evolution and Structure of Fine Structure Magnetic Fields

09:50-10:20 A. Hofmann, W. Schmidt and T. D. Tarbell:

High Resolution Magnetic Field Measurements in the Sunspot Photosphere

10:20-10:50 C. U. Keller:

Small-scale Structures in Active Regions

10:50-11:05 **Tea Break**

Oral Contributed Papers:

11:05-11:20 M. Sobotka, J. A. Bonet, M. Vazquez:

High-resolution Observations of Umbral Fine Structure

11:20-11:35 J. Sanchez Almeida, V. Martinez Pillet, J. Trujillo Bueno, B. W. Lites:

High Angular Resolution Stokes V Spectra in Penumbrae

11:35-11:50 S. I. Gopasyuk:

Changes with Height of Longitudinal Magnetic Field in Active Regions

11:50-12:05 N. Mein, P. Mein, B. Schmieder, P. Demoulin, Guoxiang Ai, and O. Engvold:

Active Region Evolution Through Coordinated Observations

2:00-5:00 PM

Colloquium Session 2: THEORY OF ACTIVE REGION STRUCTURE

Chairman, P. R. Wilson

Invited Papers:

02:00-02:30 T. Sakurai:

Computational Modeling of Solar Magnetic Fields

02:30-03:00 S. T. Wu:

Extrapolation of Non Linear Force Free Field: A Numerical Model

Oral Contributed Papers:

03:00-03:15 K. Petrovay:

The Small-scale Photospheric Magnetic Field as an Indicator of the Dynamo

03:15-03:45 **Tea Break**

03:45-04:00 Edward Lu:

Avalanches of Magnetic Reconnection

04:00-04:15 E. I. Mogilevsky:

Energy in the Magnetic Topological Centers of the Active Regions

04:15-04:30 Shi-hui Ye, Jie-hai Jin:

Monochromatic Images of Sunspots in Linearly Polarized Radiation and Structure of Their Magnetic Fields

04:30-04:45 Li Sang Jae:

The Effects of Longitudinal Magnetic Field and Hall Current on the Thermal Instability of the Current Sheet and the Trigger for Solar Flares

04:45-05:00 Suresh Chandra and Lalan Prasad:

Force-free Magnetic Fields May Have a "Loss of Equilibrium"

07:00-09:30 PM Excursion

Beijing Opera

TUESDAY, SEPT.8

08:45-12:00 AM

Colloquium Session 3: TECHNIQUES OF MAGNETIC FIELD MEASUREMENTS

Chairman, J. Stenflo

Invited Papers:

08:45-09:15 Guoxiang Ai:

Progress in Measurements of Solar Magnetic Fields

09:15-09:45 H. Jones:

Spectrometer-Based Magnetographs

09:45-10:15 D. Deming:

12 μ m Magnetic Field Measurements

10:15-10:30 **Tea Break**

Oral Contributed Papers:

- 10:30-10:45 K. Ichimoto, T. Sakurai, Y. Nishino, K. Shinoda, M. Noguchi, K. Kumagai, H. Imai, M. Irie, M. Miyashita, N. Tanaka, I. Sano and Z. Zhao: Magnetic Field Observations with the Solar Flare Telescope at Mitaka
- 10:45-11:00 P. Mine, J. Rayrole: Themis Telescope Prospects in High Resolution Magnetic Field Observations
- 11:00-11:15 Rob Rutten and Mats Carlsson: Infrared Rydberg Magnetometry
- 11:15-11:30 V. Martinez Pillet, J. Trujillo Bueno *et al*: Atomic Orientation in Chromospheric Lines
- 11:30-11:45 J. Sanchez Almeida, B. W. Lites: Asymmetric Stokes Q, U and V Line Profiles Observed in Sunspots
- 11:45-12:00 Zhongquan Qu, Youji Ding, Jiayu Xuan and Shi-hui Ye: On the Inference of Magnetic Field Vectors From Stokes Profiles: A Generalization of the weak-field Approximation

02:00-05:00 PM Excursion

Shopping Downtown, Friendship Store

07:00-09:30 PM

Colloquium Session 4: FRIENDLY DEBATE—RELATION OF QUIET SUN TO ACTIVE REGIONS

Chairman, R. Howard

Invited Papers:

- 07:00-07:30 J. Stenflo: Strong and Weak Magnetic Fields: Nature of the Small-scale Flux Elements
- 07:30-08:00 H. Zirin: Strong and Weak Magnetic Fields: Nature of the Small-scale Flux Elements
- 08:00-09:30 **Free Discussion**

WEDNESDAY, SEPT. 9 Excursion

08:30-11:30 AM

Beijing Ancient Observatory and Temple of Heaven

01:30-04:30 PM

Forbidden City

THURSDAY, SEPT. 10

08:45-12:00 AM

Colloquium Session 5: FIELDS IN THE CHROMOSPHERE AND CORONA

Chairman, M. Kundu

Invited Papers:

- 08:45-09:15 S. Tsuneta: Yokkoh Observations of Active Regions

- 09:15-09:45 A. Kruger:
Coronal Magnetic Fields Deduced From Radio Methods
- 09:45-10:15 T. Sakao:
Hard and Soft X-ray Imaging Observations by YOHKOH of the 15
November, 1991 Flare
- 10:15-10:45 **Tea Break**
- Oral Contributed Papers:**
- 10:45-11:00 Hongqi Zhang, Guoxiang Ai, Wei Li and Jimin Chen:
Structures of Chromospheric Magnetic Field in Solar Active Regions
- 11:00-11:15 Wei Li, Guoxiang Ai and Hongqi Zhang:
The Evolution Features of H_{β} Doppler Velocity Field in Flare Productive
Regions
- 11:15-11:30 S. Enome, H. Nakajima, K. Shibasaki, M. Nishio, T. Takano, Y.
Hanaoka, C. Torii, H. Sekiguchi, S. Kawashima, Shinohara, Y. Irimajiri,
H. Koshiishi, T. Kosugi, Y. Shiomi, M. Sawa:
Magnetic Fields of Chromosphere and Corona Observed with New
Nobeyama Radioheliograph
- 11:30-11:45 V. M. Bogod, B. E. Rjabov and S. R. Khafizov:
The Discovery of Slim Magnetic Field Structure in the Active Region
Using the Solar Radio Observation
- 11:45-12:00 G. B. Gelfreikh *et al*:
The Methods of Measurements of the Solar Magnetic Fields Using Ra-
dio Observations with the RATAN-600

02:00-05:00 PM Excursion to the Summer Palace

07:00-09:30 PM

Colloquium Session 6: FLARES AND TRANSIENTS

Chairman, A. Bhatnagar

Invited Papers:

- 07:00-07:30 H. Wang:
Flows, Evolution of Magnetic Fields and Flares
- 07:30-08:00 J. C. Henoux:
Topological Singularities of the Magnetic Field and Solar Flares

Oral Contributed Papers:

- 08:00-08:15 Takeo Kosugi:
Hard X-ray Observations of Solar Flares by YOHKOH: A Preliminary
Review
- 08:15-08:30 K. Shibata, Y. Ishido, L. Acton, K. Strong, T. Hirayama, Y. Uchida,
A. McAllister, R. Matsumoto, S. Tsuneta, T. Shimizu, H. Hara, T.
Sakurai, K. Ichimoto, Y. Nishino and Y. Ogawara:
Observations of X-ray Jets Using Yohkoh Soft X-ray Telescope
- 08:30-08:45 Fang Cheng, Su-ying Yin and Ming-de Ding:
Diagnostics of the Velocity Field in the Lower Atmosphere of Solar
Flare
- 08:45-09:00 Vladimir Hayrapetyan:
Primary Energy Release in a Solar Flare

- 09:00-09:15 A. Bhatnagar, N. Srivastava:
Magnetic Field Configuration in H α Flare loops and Flaring Arches
- 09:15-09:30 Qijun Fu *et al*:
Conclusive Evidences for Reality of Solar Radio Fluctuation

FRIDAY, SEPT. 11**08:45-12:00 AM****Colloquium Session 7: MAGNETIC SHEAR AND ELECTRIC CURRENTS****Chairman, M. Hagyard****Invited Papers:**

- 08:45-09:15 T. Forbes:
Model Prediction for Magnetic Shear Change During Solar Flares
- 09:15-09:30 Jingxiu Wang:
Analyses of Vector Magnetograms
- 09:30-10:45 **Tea Break and Poster Session**

Oral Contributed Papers:

- 10:45-11:00 V. I. Abramenko:
Systems of Vertical Electric Currents in Active Region
- 11:00-11:15 N. Seehafer:
Magnetic Field Line Topology in Solar Active Regions
- 11:15-11:30 Linxiang Wu:
A Sufficient for Krall's Criterion and Its Modification
- 11:30-11:45 Xing Li and Y. Q. Hu :
Simulation of the Interaction of Two High Shear Magnetic Bipoles
- 11:45-12:00 Yuanzhang Lin, Xiaolei Wei and Hongqi Zhang:
Variations of Magnetic Fields and Electric Currents Associated with a Solar Flare

02:00-05:00 PM**Colloquium Session 8: STRUCTURE AND ROLE OF EMERGING FLUX REGIONS****Chairman, C. Zwaan****Invited Papers:**

- 02:00-02:30 D. Chou:
Structure of Emerging Flux Region
- 02:30-03:00 Y. Wang and N. R. Sheely, Jr.:
Flux Emergence and the Evolution of Large-scale Photospheric Field Patterns
- 03:00-03:30 V. Gaizauskas:
Clustering of Active Region in Solar Activity
- 03:30-03:45 **Tea Break**

Oral Contributed Papers:

- 03:45-04:00 Karen L. Harvey:
The Global Properties of Active Regions
- 04:00-04:15 Robert F. Howard:
The Development of Sunspot Groups

- 04:15-04:30 Pavel Ambroz:
Evolutionary Characteristics of Large-scale Magnetic and Velocity Fields
- 04:30-04:45 H. Kurokawa and G. Kawai:
Morphological and Evolutional Characteristics of Surges Spouting from Emerging Flux Regions
- 04:45-05:00 V. M. Grigoryev:
Background Magnetic Fields and Formation of Active Regions
- 07:00-09:30 PM Banquet**

SATURDAY, SEPT. 12

08:45-12:00 AM

Colloquium Session 9: CONVECTIONS AND OSCILLATIONS IN ACTIVE REGIONS

Chairman, M. Makita

Invited Papers:

- 08:45-09:15 J. Thomas:
Sunspot Seismology: The Interaction of Solar p-mode with Sunspot
- 09:15-09:45 J. Harvey:
Active Region Oscillations
- 09:45-10:15 **Tea Break**

Oral Contributed Papers:

- 10:15-10:30 B. Fleck, F.-L. Deubner and W. Schmidt:
Observations of Waves and Oscillations in the Solar Magnetic Fine Structure
- 10:30-10:45 B. W. Lites, R. J. Rutten, W. Kalkofen:
Oscillations of the Magnetic Network
- 10:45-11:00 M. Ryutova, E. Priest:
The Interaction of Unsteady Acoustic Wave-packets with the Random Ensembles of Magnetic Flux Tubes
- 11:00-11:15 S. K. Solanki, I. Ruedi, D. Rabin:
Siphon Flow Across the Magnetic Neutral-line of an Active Region
- 11:15-11:30 A. V. Stepanov and Yu. T. Tsap:
Oscillations in Energy Release Volume: An Equivalent LRC-circuit
- 11:30-11:45 L. Nocera:
Fractal MHD Waves in the Solar Atmosphere

02:00-05:00 PM

Oral Contributed Papers:

- 02:00-02:15 G. Lustig and H. Wohl:
Plasma Motions Around Sunspots
- 02:15-02:30 P. Mein, N. Mein:
Flows in Active Regions: Imaging Spectroscopy in Chromosphere and Photosphere

Colloquium Session 10: WINDUP, FINAL REMARKS

Chairman, Guoxiang Ai

- 02:30 H. Zirin: Summary