

2<sup>nd</sup> UN/NASA workshop on International Heliophysical Year and Basic  
Space Science  
November 27 – December 1, 2006  
Indian Institute of Astrophysics, Bangalore, India

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Program

Monday, 27 November 2006

Inaugural session

Chair : S.S. Hasan

9:30 *Welcome Remarks* by ISOC Co-chairs

S. S. Hasan, H. Haubold, N. Gopalswamy

9:45 *Introductory remarks* by J. Davila (IHY Steering Committee)

9:50 *Presentation of mementos*

10:00 *Keynote address*: K. Kasturi Rangan (ISRO)

10:20 *ILWS and IHY*: M. Guhathakurta (NASA/HQ)

10:30 *Logistics*: R. Ramesh

10:35 IGY Gold Certificates to Indian Scientists

(To be given by B. J. Thompson to India IHY team)

10:40 – 11:00 hrs Tea Break

Session 1: IHY Overview

Chair: C. Amory Mazaudier

11:00 J. Davila: *IHY Overview: Science, Observatory Development, Outreach and history*

11:15 H. Haubold: *UNBSS Program: A Historical Introduction*

11:30 N. Gopalswamy: *IHY and UNBSS Program: Success Stories*

11:45 B. J. Thompson: *IHY CIPs*

12:00 K. Georgieva: *IHY activities in the Black Sea Area*

12:15 P. K. Manoharan: *India IHY*

12:30 B. Rabiou: *IHY activities in Africa*

12:45 H.M.K. Al Naimiy: *IHY activities in West Asia*

13:00 – 14:00 hrs Lunch Break

Session 2 - Solar surface phenomenon

Chair – A.R. Choudhuri

14:00 R. Erdelyi: *Solar magnetic waves and oscillations*

14:20 K.R. Sivaraman: *Polar activity, meridional flow and the sunspot cycle*

14:40 A. Ambastha: *Signatures of large flares on photospheric magnetic and velocity fields*

15:00 K. Sankara Subramanian: *Fine scale magnetic fields in and around a decaying active region*

15:20 P. Chatterjee: *Forecasting cycle 24 with a solar dynamo model*

15:40 – 16:00 hrs Tea break

Session 3 - Chromosphere and transition region dynamics

Chair – C. Uberoi

16:00 S.S. Hasan: *Title and abstract not received*

16:20 K. Wilhelm: *Lessons from the SUMER/SOHO solar ultraviolet spectrograph*

16:40 R. Kariyappa: *Contribution of solar chromospheric fine scale features to UV irradiance variability*

17:00 D. Banerjee: *Multi-wavelength study of active region loop dynamics*

17: 20 P. Venkatakrisnan: *Multi-application solar telescope – A versatile tool for studying the physics of solar eruptions*

17:40 L. Dame: *Chromospheric and transition zone dynamics and heating: Needs for future space missions*

18:00 Adjourn

18:15 Departure for Hotel Grand Ashok: dance program and IIA Director's dinner.

Tuesday, 28 November 2006

Session 4 - Coronal Studies

Chair – J. Davila (to be confirmed)

09:00 T. Sakurai: *Observation of CME source regions by coronal emission line dopplergrams*

09:20 J. Singh: *Magnetic nature of coronal loops*  
09:40 R. Jain: *SOXS for IHY 2007 and beyond*  
10:00 Y.-J. Moon: *Sun-Earth connection studies at KASI*  
10:20 S. Ananthakrishnan: *GMRT and solar radio observations*  
10:40 K.R. Subramanian: *Variations in the global solar radio flux during the extreme solar eruptions of October-November 2003*  
11:00 P. Subramanian: *Electron acceleration in solar noise storms*  
Ramesh, Kathiravan: *Talk on Gauribidanur radio studies?*

11:20 – 11:40 hrs Tea break

Session 5 - Corona and Interplanetary Medium

Chair: T. Sakurai (To be Confirmed)

11:40 B.N. Dwivedi: *Propagation and dissipation of MHD waves in coronal holes*  
12:00 M.D. Popescu: *Observational clues to the origin of fast solar wind*  
12:20 N. Srivastava: *On the slow rise phase of eruptive quiescent solar prominences*  
12:40 N. Gopalswamy: *CMEs in the Heliosphere*  
Janardhan, Manoharan: *Solar wind studies in India?*

Session 6 - Terrestrial atmosphere

Chair – U. Inan (to be confirmed)

14:00 G.S. Lakhina: *Solar energetic particle events and geomagnetic storms*  
14:20 B.M. Reddy: *Solar influences on terrestrial ionosphere and radio communications*  
14:40 P.B. Rao: *Radar studies of ionospheric plasma irregularities*  
15:00 J. H. Sastri: *Physical processes underlying the equatorial effects of solar wind dynamic pressure variations*  
15:20 R. Sridharan: *Interplay between the equatorial geophysical processes*

Session 7 - Terrestrial atmosphere (continued)

Chair: J. H. Sastry (to be confirmed)

16:00 A. Bhattacharya: *Effect of solar variability on the evolution of equatorial spread F*

16:20 S. Gurubaran: *Long term variabilities of planetary scale waves in the mesosphere-lower thermosphere region*

16:40 D. Narayana Rao: *Radar and lidar probing of the atmosphere*

Session 8 - Non extensive statistical mechanics

Chair – H. Haubold or C. Sivaram (to be confirmed)

17:00 A.M. Mathai: *Generalized measure of entropy, Mathai's distributional pathway model, and Tsallis statistics*

17:20 J. Martinez: *Geological and astrobiological exploration of the solar system: Significance of analogs on Earth*

17:40 Planetarium show (NASA/HQ will provide a DVD. At IIA or at the Planetarium? Check with Dr. BS Shylaja)

Wednesday, 29 November 2006

Session 9 – Instrument donors I

Chair – N. Gopalswamy

09:00 C. Monstein: *CALLISTO - radio spectrometer*

09:20 S. Ueno: *Chain-project and installation of flare monitoring telescopes in developing countries*

09:40 K. Yumoto: *Magnetic data acquisition system (MAGDAS) for IHY 2007*

10:00 C. Amory Mazaudier: *Geophysics integrated studies in the Sun-Earth system: A co-operative project - Vietnam, Europe and Africa*

10:20 K. Groves: *Expanding the SCINDA network for IHY 2007*

10:40 – 11:00 hrs Tea break

Session 10 - Instrument donors II

Chair – R.V. Bhonsle (to be confirmed)

11:00 T. Garner: *Preliminary observations of ionospheric structures using ground receivers an the COSMIC radio beacon*

11:20 I. Unan: *VLF remote sensing of the lower atmosphere with AWESOME receivers*

11:40 J.H. Fernandez: *Southern atlantic magnetic anomaly (SAMA) monitoring through installation of small magnetometer network in the Brazilian territory*

12:00 S.G. Kanekal: *High latitude energetic particle boundaries: The SAMPEX database*

12:20 R.A. Schwartz: *Prospects for GDL and solar software*

12: 40 *General Discussion on the Donor Program*

13:00 – 14:00 Lunch break

14:00: Free Afternoon (Discussion Groups)

Participants will have dinner at their lodging place.

Thursday, 30 November 2006

Session 11 - Instrument hosts

Chair – S. Ananthakrishnan (to be confirmed)

09:00 P.K. Manoharan : *IPS CIP and CALLISTO hosting*

09:20 R. Singh: *Very low frequency studies of ionospheric/magnetospheric electromagnetic phenomena in Indian low latitude region using AWESOME receivers*

09:40 K. Georgieva: *A neutron monitor in Bulgaria (SAVNET)*

10:00 T. Djameluddin: *Preparation of IHY 2007 in Indonesia*

10:20 A. Kebede: *Capacity building partnership for research and education in space science at North Carolina Agricultural & Technical State University – Progress report*

10:40 – 11:00 hrs Tea Break

Session 12 - Instrument hosts (continued)

Chair – B. J. Thompson (to be confirmed)

11:00 A.T. Al Mousli: *Astronomy in Syria*

11:15 J.K. Ishitsuka: *A solar station for education and research on solar activity at a national university in Peru*

11:30 E.G. Dountio: *Radiative transfer model in the atmosphere and experimental solar data of Yaounde location*

11:45 N. Seghouani: *High resolution spectral analysis for irregularly sampled helioseismic data*

12:00 J.T. Nugroho: *Indication of solar signal in Indian ocean dipole phenomena over Indonesia*

12:15 N.M.R. Al Ubaidi: *A developed numerical mapping technique*

12:30 J.O.H. Ndeda: *Determination of coefficient of correlation between radiation and relative humidity and equation of line of best fit using statistical methods*

12:45 TBD

13:00 – 14:00 Lunch break

### Session 13 – IHY Science in Developing Countries

Chair – A.B. Rabiou (to be confirmed)

14:00 A. Mahrous: *The gap in global ionospheric and heliospheric measurements over Africa: our proposals for IHY 2007*

14:15 S. Krasotkin: *Space sciences education and outreach project of Moscow state university*

14:30 B. Damtie: *Optimal long binary phase code-mismatched filter pairs with the application to ionospheric radars*

14:45 E.Y. Kassie: *A tomographic reconstruction technique applied to the GPS TEC data*

14:30 Z.A. Abdul Rashid: *Influence of solar energetic phenomena on GPS PWV during the major storm of 2003 at Scott base station, Antartica*

14:45 Arthur Hughes: *IHY Activities in South Africa?*

15:00 TBD

15:15 TBD

15:30 – 16:00 Tea Break

Session 14:

16:00 Panel Discussion on International Collaboration  
(moderator, speakers to be decided)

Session 15:

17:00 Panel Discussion on Future IHY/UNBSS Workshops  
(moderator, speakers to be decided)

17:40 Adjourn

18:30: Departure for Hotel Royal Orchid for ISRO Chairman's dinner.

Friday, 1 December 2006

Session 16 - Virtual Observatories

Chair – R. Schwartz (to be confirmed)

09:00 G. Eichhorn: *Searching the scholarly literature made easier*

09:20 Jayant Murthy: Virtual Observatories/ Hoskote?

09:40 B. J. Thompson: *IHY-CAWSES data base*

09:40 Open Discussion on Data usage in developing countries

10:30 – 11:00 hrs Tea break

11:00 – 13:00 hrs

Session 17: Concluding session

Chair: H. Haubold

Need Programming