



Advanced High Spectral Resolution Infrared Observations
University of Wisconsin – Madison
J. F. Friedrich Center
26-28 April 2006

AGENDA

26 April 2006

Morning:

❖ ***Forward Modeling: Clear and Cloudy***

- 08:50-09:00 Session Introduction by **Roger Saunders**
- 09:00-09:35 Lessons learned with the AIRS Hyperspectral Sensor (Larrabee Strow)
- 09:40-10:15 Biases in radiative transfer models for high resolution sounders (Roger Saunders)
- 10:20-10:30 BREAK
- 10:30-11:05 Optimal Spectral Sampling (OSS) method: recent advances (Jean-Luc Moncet)
- 11:10-11:45 CRTM at JCSDA. A Status Report (Paul Van Delst)
- 11:50-12:25 PCRTM (Xu Liu)
- 12:30 ADJOURNMENT

Afternoon:

❖ ***Forward Modeling: Clear and Cloudy***

- 13:55-14:00 Session Introduction by: **Allen Huang**
- 14:00-14:35 The Forward Model for Thermal Remote Sensing (Tony Clough)
- 14:40-15:15 The introduction of a parameterization for multiple scattering in RTIASI, the ECMWF fast radiative transfer model for the Infrared Atmospheric Sounding Interferometer (Marco Matricardi)
- 15:20-15:30 BREAK
- 15:30-16:05 Retrieval of cloud optical properties from infrared hyper-spectral measurements (Tiziano Maestri)
- 16:10-16:45 Scattering of Ice Clouds in IR Forward RT Models (Zhibo Zhang)
- 16:50-17:30 Group Discussion
- 17:30 ADJOURNMENT

Evening:

- ❖ 18:30 **Workshop banquet**

27 April 2006

Morning:

❖ *Information Content in the PCA Framework*

08:55-09:00 Session Introduction by **Bill Smith**

09:00-09:35 Objective Determination of the Number of PCs Used in Reconstructing Data (Dave Turner)

09:40-10:15 Hyperspectral Data Noise Characterization using PCA (Dave Tobin)

10:20-10:30 BREAK

10:30-11:05 Application of PCA to TES data (Clive Rodgers)

11:10-11:45 PCA and Surface Emissivities (Eva Borbas, Suzanne Wetzel Seemann)

11:50-12:25 Application of PCA to IASI data (Andrew Collard)

12:30 ADJOURNMENT

Afternoon:

❖ *IASI: Instrument Design, Calibration, Data Processing, Data Access*

❖ *Validation Activities for High Spectral Resolution IR Instruments*

13:55-14:00 Session Introduction by **Peter Schlüssel**

14:00-14:45 IASI status two months before launch. On ground Instrument performances and plan for Level 1 validation (Thierry Phulpin).

14:50-15:25 Radiance and Surface Property Validation (Robert Knuteson)

15:30-15:40 BREAK

15:40-16:05 IASI product generation, products, and data access (Peter Schlüssel)

16:10-16:45 Preparation for the Distribution of IASI Radiances to NCEP and GMAO (Walter Wolf)

16:50-17:30 Group Discussion

17:30 ADJOURNMENT

28 April 2006

Morning:

❖ *Geo Sounder*

08:55-09:00 Session Introduction by **Paul Menzel**

09:00-09:35 Observing Capabilities Required for Geo Sounders (Bill Smith)

09:40-10:15 A Perspective on US GOES Sounder Development: Some Key Requirements, Hyperspectral Environmental Suite (HES) Sounder, and GIFTS (Hank Revercomb)

10:20-10:30 BREAK

10:30-11:05 HES Trade-off Studies (Jun Li)

11:10-11:45 MTG (Stephen Tjemkes)

11:50-12:30 Group Discussion

12:30 ADJOURNMENT