2004 CALCON Technical Conference

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August 23–26, 2004

Utah State University
Eccles Conference Center
Logan, UT, USA

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Program

Conference Agenda

Monday, August 23, 2004

1:00 PM–5:00 PM — Tutorial/Pre-Conference Workshop at SDL

Tuesday, August 24, 2004

7:30 AM–8:30 AM — Registration
Breakfast
Posters

8:30 AM–8:45 AM — **Conference Welcome:** Brent Miller—VP for Research, Utah State University
Introduction of Keynote Speaker: Michael Pavich—Director, Space Dynamics Laboratory

8:45 AM–9:15 AM — **Keynote Presentation:** Dr. Stephen A. Mango—Chief Scientist, National Polar-orbiting Operational Environmental Satellite System (NPOESS) Integrated Programs Office

9:15 AM–10:15 AM — **Technical Session:** Calibration of Operational Meteorological Satellite Sensors in the Visible and IR

- 9:15 AM–9:45 AM — Verification of HIRS Spectral Response Functions for more Accurate Atmospheric Sounding
- 9:45 AM–10:15 AM — A Description of ITT's GOES Advanced Baseline Imager (ABI) Calibration System

10:15 AM–10:30 AM — Refreshment Break

10:30 AM–12:00 PM — **Technical Session:** Calibration of Operational Meteorological Satellite Sensors in the Visible and IR

- 10:30 AM–11:00 AM — Components of ITT's GOES Advanced Baseline Imager (ABI) Calibration System
- 11:00 AM–11:30 AM — Challenging Issues for On-orbit Calibration in the VIS and NIR
- 11:30 AM–12:00 PM — Review of ER-2 Aircraft Based Calibration Assessment for Emissive Bands of Polar Orbiting Satellites

12:00 PM–1:00 PM — Lunch Break

1:00 PM –3:30 PM — **Technical Session:** Calibration of Operational Meteorological Satellite Sensors in the Visible and IR

- 1:00 PM–1:30 PM — Aging Effects in Cryogenically-Cooled Infrared Filter Radiometers and their Implications to the Performance of Space Instrumentation
- 1:30 PM–2:00 PM — Vicarious Calibration of AVHRR/3 Solar Reflectance Channels
- 2:00 PM–2:30 PM — Inter-Calibration of Geostationary and AVHRR Satellite Sensors with VIRS, Terra and Aqua-MODIS
- 2:30 PM–3:00 PM — The Effect of HIRS Spectral Uncertainty on Cloud Retrievals with CO_2 Slicing
- 3:00 PM–3:30 PM — Retrospective Analysis of the Calibration of AVHRR Infrared Channels

3:30 PM–3:45 PM — Refreshment Break

3:45 PM–5:45 PM **Technical Session:** Pre-launch to On-Orbit Calibration Transfer: The Sea-viewing Wide Field-of-view Sensor (SeaWiFS), a Case Study

- 3:45 PM–4:15 PM SeaWiFS Pre-Launch Characterization and Calibration
- 4:15 PM–4:45 PM SeaWiFS Transfer-to-Orbit Experiment
- 4:45 PM–5:15 PM SeaWiFS On-Orbit Changes Using the Moon
- 5:15 PM–5:45 PM SeaWiFS Vicarious Calibration

Wednesday, August 25, 2004

7:30 AM–8:00 AM Breakfast

Posters

8:00 AM–10:00 AM **Technical Session:** Absolute Radiometry and its Traceability in Remote Sensing

- 8:00 AM–8:30 AM Calibration of the Spectral Radiance of the Tiffri Blackbody Using the Upgraded AMBER Facility
- 8:30 AM–9:00 AM The Realization and the Dissemination of the Detector-Based Kelvin
- 9:00 AM–9:30 AM The Establishment and Verification of NIST Traceability for Remote Sensing Radiometry: 10 Years in the Trenches and Counting
- 9:30 AM–10:00 AM NIST Traceability in ITT's GOES ABI Design

10:00 AM–10:30 AM **Poster Viewing—Authors Present**

10:15 AM–10:30 AM Refreshment Break

10:30 AM–12:00 PM **Technical Session:** Absolute Radiometry and its Traceability in Remote Sensing

- 10:30 AM–11:00 AM Infrared Spectral Reflectance Capabilities at NIST
- 11:00 AM–11:30 AM Intercomparison Tests for Extended-Area Blackbodies
- 11:30 AM–12:00 PM Highly Emissive 10 to 100 Micron Blackbodies

12:00 PM–1:00 PM Lunch Break

1:00 PM–2:00 PM **Technical Session:** Absolute Radiometry and its Traceability in Remote Sensing

- 1:00 PM–1:30 PM High-Temperature Fixed Points on the Basis of Metal-Carbon Eutectics and their Utilization for Radiometric Calibrations of Space Borne Instruments for Remote Sensing
- 1:30 PM–2:00 PM Calibration Activities, Equipment Upgrades and Future Direction of the Low Background Infrared Facility

2:00 PM–4:00 PM **Technical Session:** Critical Characterizations and Novel Calibrations of Components, Subsystems, and Systems

- 2:00 PM–2:30 PM Detector-Based NIST-Traceable Validation and Calibration of Infrared Collimators
- 2:30 PM–3:00 PM Radiometric and Spectral Calibration Stability Of the Atmospheric Infrared Sounder (AIRS)
- 3:00 PM–3:30 PM Absolute Linearity Measurements on HgCdTe Detectors in the Infrared
- 3:30 PM–4:00 PM Characterization of the Stierwalt Effect in Multilayer Dielectric Filters
- 3:45 PM–4:15 PM Radiometric Calibration Capability and Uncertainty Estimates Associated with IR Sources in the AEDC 7V Chamber

4:00 PM–4:15 PM Refreshment Break

4:15 PM–5:45 PM **Technical Session:** Polarization Issues

- 4:15 PM–4:45 PM Polarization Analysis of the MODIS Reflective Solar Bands
- 4:45 PM–5:15 PM Polarimetric Calibration by Direct Measurement of the System Mueller Matrix
- 5:15 PM–5:45 PM Polarization Ray Trace Model of the MODIS Instrument

6:00 PM–9:00 PM Barbeque—Logan Canyon

Thursday, August 26, 2004

7:30 AM–8:00 AM	Breakfast
	Posters
8:00 AM–10:00 AM	**Technical Session:** Solar, Lunar, and Stellar Radiometric Measurements
	8:00 AM–8:30 AM — MSX Observations of Standard Infrared Calibration Stars
	8:30 AM–9:00 AM — Absolute Calibration using the MSX Reference Spheres
	9:00 AM–9:30 AM — Enhancing the Air Force Stellar Calibration Network with High Spectral Resolution Data from the Infrared Space Observatory
	9:30 AM–10:00 AM — Aerospace Spectral Energy Distribution (ASED) Catalog Cross-Calibration Checks
10:00 AM–10:30 AM	**Poster Viewing—Authors Present**
10:15 AM–10:30 AM	Refreshment Break
10:30 AM–12:30 PM	**Technical Session:** Solar, Lunar, and Stellar Radiometric Measurements
	10:30 AM–11:00 AM — More Than You Want to Know
	11:00 AM–11:30 AM — An Overview of Lunar Calibration and Characterization for the EOS Terra and Aqua MODIS
	11:30 AM–12:00 PM — ROLO Capabilities for On-Orbit Calibration Using the Moon
	12:00 PM–12:30 PM — Reducing the Robotic Lunar Observatory (ROLO) Irradiance Model Uncertainty SI
12:30 PM–1:00 PM	**Conference Conclusion**

Thursday, August 26, 2004

2:00 PM–5:30 PM — **Special US Classified Session at SDL**

Conference Presenters

The Speaker Ready Room is located in Room 212. You must deliver your presentation to be loaded onto the server on or before the day and time specified below:

Tuesday Speakers:	Due by Tuesday, August 24	8:00 AM
Wednesday Speakers:	Due by Tuesday, August 24	3:00 PM
Thursday Speakers:	Due by Wednesday, August 25	3:00 PM

Conference Session Chairs & Presenters:

All speakers are required to attend an audiovisual meeting with the technician and session chairs. This is your opportunity to be trained and to practice with the equipment as well as meet your session chair. You are required to attend the meeting on the day of your presentation. Audiovisual meetings will be held in Auditorium Room 216 at the following times:

Tuesday Speakers & Session Chairs:	Tuesday, August 24	7:30-8:15 AM
Wednesday Speakers & Session Chairs:	Wednesday, August 25	7:30-8:15 AM
Thursday Speakers & Session Chairs:	Thursday, August 26	7:30-8:15 AM

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