

# Program

## Third Cloud Parameter Retrieval Workshop



*Courtesy Daniel Hartung*

15 - 18 November 2011 Madison, Wisconsin, USA  
hosted by the University of Wisconsin

### Organizing Committee

*Bryan Baum, Ralf Bennartz, Ulrich Hamann, Andrew Heidinger, Rob Roebeling,  
Andi Walther, and Anke Thoss*

Co-sponsored by:  **EUMETSAT**

## Tuesday 15 November 2011

**07:30 Registration & Continental breakfast**

**08:30 Welcome**

*Bryan Baum*

### **INSTRUMENT CALIBRATION**

**Chairperson: Patrick Minnis**

**08:40 Keynote: Calibration and Inter-calibration of geostationary satellite data for climate monitoring**

*Rob Roebeling (on behalf of Jörg Schultz)*

**09:10 MODIS Radiometric Calibration and Uncertainty Assessment**

*Xiaoxiong (Jack) Xiong*

**09:30 Using MSG-SEVIRI for the inter-calibration of visible and near-infrared reflectance from polar imagers**

*Jan Fokke Meirink*

**09:50 The calibration of geostationary visible sensors using MODIS as a reference**

*Dave Doelling*

**10:10 COFFEE BREAK**

### **CLOUDS REFERENCE OBSERVATIONS**

**Chairperson: Andreas Macke**

**10:30 Keynote: CLOUDSAT products**

*Graeme Stephens*

**11:00 CALIPSO products**

*Dave Winker*

**11:20 <Title tbc >**

*Tristan L' Ecuyer*

**11:40 Cloud liquid water path of warm clouds from passive microwave and visible/near-infrared imagers**

*Ralf Bennartz*

**12:00 Evaluation of MISR Stereo Cloud-Top Height Retrievals**

*Ákos Horváth*

**12:20 LUNCH BREAK**

*ask for interests in working groups*

## **CLOUD DETECTION FROM PASSIVE SENSORS**

**Chairperson: Steven Dewitte**

**14:00 Keynote: Overview of the MODIS Cloud Detection Algorithm**

*Steve Ackerman*

**14:30 SAFNWC / MSG cloud products**

*M. Derrien*

**14:50 Multi-layer cloud detection within the SCE/CLA algorithm**

*Hans Lutz*

**15:10 Improvements in Night-time Low Cloud Detection and MODIS-Style Cloud Optical Properties from MSG SEVIRI**

*Galina Wind*

**15:30 Accuracy Assessment of SEVIRI Cloud Detection and Cloud Top Height Retrievals Using Active Remote Sensing Data from CLOUDSAT and CALIPSO**

*Maarit Lockhoff*

**Chairperson: Steve Ackerman**

**15:50 POSTER PRESENTATIONS (1 slides, appr. 1 min per poster)**

**16:30 POSTER SESSION & ICE BREAKER**

## Wednesday 16 November 2011

**07:30 BREAKFAST**

### **CLOUD PROPERTIES FROM PASSIVE SENSORS**

**Chairperson: Michael King**

**09:00 Keynote: Overview of the MODIS Collection 6 Optical Property Algorithm**

*Steve Platnick*

**09:30 Updated NASA Langley Cloud Property Retrievals**

*Patrick Minnis*

**09:50 New AIRS Version 6 cloud retrievals: cloud thermodynamic phase, cirrus cloud optical thickness and effective diameter**

*Brian Kahn*

**10:10 Synergetic cloud top height retrieval for a passive and an active sensor**

*Anja Hünerbein*

**10:30 COFFEE BREAK**

**11:00 Progress on optimal estimation cloud property retrieval from SEVIRI observations**

*Phill Watts*

**11:20 Cloud analyses with passive satellite imagery viewed from the radiative perspective**

*Hartwig Deneke*

**11:40 State of the NOAA AWG Cloud Algorithms and their application in the Great Lakes Region**

*Andrew Heidinger*

**12:00 LUNCH**

## **CREW-3 INTERCOMPARISON AND VALIDATION**

**Chairperson: Rene Preusker**

**13:30 Overview**

*Rob Roebeling*

**13:50 Retrieval of cloud properties using synthetic datasets**

*Alexander Kokhanovsky*

**14:10 Realistic Simulations of MSG/SEVIRI Scenes for Cloud Algorithm Validation**

*Luca Bugliaro*

**14:30 Using CALIPSO/CloudSat Data to Evaluate the Multilayer Cloud Properties Retrieved from MODIS and SEVIRI Data**

*Fu-Lung Chang*

**14:50 COFFEE BREAK**

**15:20 Use of A-Train observations to assess cloud phase retrievals from SEVIRI/MSG**

*Jérôme Riédi*

**15:40 The intercomparison of retrieved cloud properties within the ESA Cloud CCI project**

*Martin Stengel*

**16:00 Results of the CREW-3 intercomparison**

*Ulrich Hamann*

**16:30 Plenary discussion: First comments CREW-3 intercomparison**

**17:00 DINNER AND SOCIAL EVENT**

## Thursday 17 November 2011

**07:30 BREAKFAST**

### **WORKING GROUPS**

**Chairperson: Rob Roebeling, Anke Thoss**

**08:30 Working group formation**

**08:45 WG sessions**

**10:00 COFFEE BREAK**

**10:30 WG sessions**

**12:00 LUNCH**

### **GENERATION OF CLIMATE DATASETS**

**Chairperson: Steve Platnick**

**13:30 Keynote: GEWEX Cloud Assessment: a review**  
*Stefan Kinne*

**14:00 Small decisions with big impacts: MODIS, ISCCP, and the evaluation of clouds in climate models**  
*Robert Pincus*

**14:20 Adding uncertainty information to cloud mask products – impact on Level 2 and Level 3 products**  
*K.-G. Karlsson*

**14:40 Evaluation of the global cloud cover distribution obtained from multi-geostationary data in the frame of the MEGHA-TROPIQUES mission with CALIPSO lidar observations.**  
*Geneviève Sèze*

**15:00 Cloud variability and climate signatures in MODIS Level-3 data**  
*Brent Maddux*

**15:20 COFFEE BREAK**

**15:40 Keynote: Recalibrating and reprocessing the HIRS data to infer global cloud properties and trends**  
*Paul Menzel*

**16:10 Evaluation of a 30-year NOAA-AVHRR cloud physical property climate data record**  
*Erwin Wolters*

**16:30 Plenary discussion: How can we prepare better climate datasets?**

**17:00 DINNER ON OWN**

## **Friday 18 November 2011**

**07:30 BREAKFAST**

### **GENERATION OF CLIMATE DATASETS**

**Chairperson: Ulrich Hamann**

**09:00 Presentations of WG *Cloud vertical placement***

**09:30 Presentations of WG *Cloud microphysical properties***

**10:00 Presentations of WG *Generation of climate datasets***

**10:30 COFFEE BREAK**

**Chairpersons: Rob Roebeling, Anke Thoss**

**11: 00 Final Plenary Discussion**

**11:50 Where to go from here**

**12:00 DEPARTURE AND BOX LUNCH**

## Posters

### **Sources of error in satellite derived products**

*Andi Walther*

### **MODIS Collection 6 Cloud Top Height and IR Thermodynamic Phase**

*Bryan A. Baum, W. Paul Menzel, Richard Frey, Robert Holz, and Andrew K. Heidinger*

### **Synergistic MERIS-AATSR cloud properties retrievals using optimal estimation technique**

*Cintia Carbajal Henken, Andi Walther, Rasmus Lindstrot, Rene Preusker, Jürgen Fischer*

### **Improved Methods for and Validation of Nighttime Cloud Property Retrievals from SEVIRI, GOES and MODIS**

*Patrick Heck, Patrick Minnis, Rabindra Palikonda, Sarah Bedka, Christopher Yost, Yuhong Yi and J. Kirk Ayers*

### **A MSG/SEVIRI simulator for the validation of climate models**

*B. Jonkheid, R. Roebeling and E. van Meijgaard*

### **Intercomparison of liquid cloud properties retrieved from POLDER/PARASOL, MODIS/AQUA and SEVIRI/MSG**

*Laurent C.-Labonnote, Jérôme Riédi, François Thieuleux, Steven Platnick, Gala Wind and Zhibo Zhang*

### **Optical Property Cloud Phase Retrievals for MODIS Collection 6: assessment from CALIOP/CALIPSO**

*Benjamin Marchant, Steven Platnick, G. Thomas Arnold, Bryan Baum*

### **An Enhanced cloud classification scheme based on radiative transfer simulations and aggregated ratings.**

*Jan Musial, Stefan Wunderle*

### **LaRC real-time satellite derived products – Overview: Applications and Limitations**

*Rabindra Palikonda, Patrick Minnis, W.L. Smith, Jr., Douglas A. Spangenberg, B. Shan, Thad Chee, J. Kirk Ayers, Mandana, M. Khaiyer, Michele L. Nordeen, Louis Nguyen, C. Fleeger, Qing Z. Trepte, Fu-Lung Chang, Patrick W. Heck*

### **Cloud Phase Determination Using Infrared Absorption Optical Depth Ratios**

*Michael J. Pavolonis*

### **A novel technique for validating liquid water cloud properties**

*S. Placidi, D. Donovan and R. Roebeling*

### **MODIS Optical Property Pixel-Level Uncertainty Estimates in Collection 6**

*Steven Platnick, Gala Wind*



**A new Spectrally Consistent Adiabatic Method to derive cloud properties from MODIS measurement**

*Vincent Puygrenier*

**Estimation of cloud properties through a spectrally consistent adiabatic model**

*John Rausch*

**Improved Methods to Resolve The Vertical Distribution Of Cloud Water From Passive Satellite Data**

*William L. Smith Jr., Patrick Minnis, Douglas Spangenberg, Rabindra Palikonda, and Yuhong Yi.*

**Application and evaluation of the Oxford-RAL Retrieval of Aerosol and Cloud algorithm to MODIS data**

*Gareth Thomas, Caroline Poulsen, Richard Siddans and Don Grainger*

**A Comparison of Cloud Detection between CERES Ed4 Cloud Mask and CALIPSO Version 3 Vertical Feature Mask**

*Qing Trepte, Patrick Minnis, Sunny Sun-Mack, Ricky Brown, Charles Trepte*

**An assessment of differences between cloud effective particle radius retrievals for marine water clouds from three MODIS spectral bands: observational and modeling studies**

*Zhibo Zhang, Steven Platnick, Graham Feingold, Andrew Ackerman, and Robert Pincus*