

# First Announcement

## 2<sup>nd</sup> Workshop

### CGMS International Cloud Working Group



**29 October - 2 November 2018, Madison, Wisconsin, USA**

Organized by the Space Science and Engineering Center of the University of Wisconsin – Madison  
Financially supported by EUMETSAT and NOAA

#### **Program Committee**

*Andrew Heidinger (co-chair), Rob Roebeling (co-chair), Dong Wu (Rapporteur), and  
Ralf Bennartz (local organizer)*

#### **CGMS Advisory Panel**

*Kerry Meyer (NASA, USA), Stefan Bojinski (WMO, Switzerland), Sung-Rae Chung (KMA Korea), Lu  
Feng (CMA, China), Andrew Heidinger (NOAA, USA), N. Puviarasan (IMD, India), Rob Roebeling  
(EUMETSAT, Germany), Alexei Rublev (Roshydromet, Russia), and Daisaku Uesawa (JMA, Japan)*



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## 2<sup>nd</sup> Workshop CGMS International Cloud Working Group

From 29 October - 2 November 2018 the 2<sup>nd</sup> Workshop of the International Cloud Working Group (ICWG) will be held in Madison, Wisconsin, USA. The local organization of the workshop is led by the Space Science and Engineering Center of the University of Wisconsin – Madison. The workshop aims at enhancing cloud retrieval schemes and their applicability and a better characterization of their validity. We invite experts working with cloud parameter retrieval schemes from passive imagers, passive microwave, and lidar and radar observations to participate in the workshop and to contribute to the workshop's cloud parameter inter-comparison and validation activities. More information on registration and submitting abstracts will follow in the second announcement.

### Background

The 2<sup>nd</sup> Workshop of the International Cloud Working Group (ICWG) within the Coordinated Group for Meteorological Satellites (CGMS) is a continuation of four earlier workshops that were organized under the name of Cloud Retrieval Evaluation Workshops (CREWs), and the 1<sup>st</sup> Workshop of the ICWG. The four earlier Workshops were held in Norrköping, Sweden (2006), Locarno, Switzerland (2009), Madison, USA (2011), and Grainau, Germany (2014). The 1<sup>st</sup> Workshop of the ICWG was held in Lille, France (2016). During these workshops, algorithms for cloud parameter retrievals were discussed and a common database with cloud parameter retrievals from different product providers was set-up. This database comprises cloud parameter retrievals from MSG, MODIS, AVHRR, POLDER and/or AIRS for a number of "golden days". A very important integral part of these past workshops were the discussions on inter-comparison and validation studies done with the data from the common database. In this way knowledge was gained on the behavior of the different retrieval schemes over different cloud conditions.

The main recommendations of the ICWG-1 in Lille, France were to:

- Facilitate level-2 cloud assessments for near-real-time applications and level-3 cloud assessments for regional and climate applications.
- Standardize requirements and terminology for cloud products;
- Enhance the use of satellite cloud products in tandem with non-satellite data;
- Stimulate dialogue with cloud product users, such as the IWWG, and integrate their requirements in the cloud retrieval algorithms;
- Use heritage sensors to develop cloud climate data records (CDRs) that better characterize calibration errors, dependence on ancillary data, and orbital drift;
- Generate sub-sampled level-1 products from historical, present, and future satellite missions to facilitate CDR reprocessing;
- Include uncertainty estimates and associated quality indicators to level-2 cloud properties, and evaluate these in future ICWG assessments;
- Maintain use of current, and plan for future, space borne lidar/radar measurements for long-term satellite cloud validation;

## 2<sup>nd</sup> Workshop of the ICWG

In the framework of the ICWG-2, we will create semi-permanent Sub-Working Groups that provide the focus and continuity necessary for addressing past and future recommendations and key research topics. Each Sub-Working Group will be led by a chair and a rapporteur (still to be chosen). At the biennial meeting, the Sub-Working Group chairs will present their results, discuss the focal points to be addressed in breakout sessions, and report on these focal points at the plenary final discussion. The Sub-Working Groups may address different topics at each workshop. The Sub-Working Groups will encapsulate the Topical Groups that were established at previous meetings. The semi-permanent Sub-Working Groups, and the Topical Groups that are active during the time frame 2016-2018, are listed given below:

- **Algorithms**
  - *Cloud Detection, including detection of Arctic/Antarctic clouds (Karl-Goran Karlsson)*
  - *Use of Combined Sensors for Cloud Retrievals (Bryan Baum)*
  - *Microwave Cloud Remote Sensing (Ralf Bennartz)*
- **Assessments (chair Andi Walther)**
  - *Assessment of level-2 Cloud Parameter Retrievals (Yong-Sang Choi)*
- **Climate Applications**
  - *Cloud Parameter Data Records for Climate Studies (Martin Stengel)*
- **Weather Applications**
  - *Severe Weather Applications (Mike Pavolonis)*
  - *Cloud Height for Wind Applications (Andrew Heidinger)*

The ICWG-2 workshop is organized by the Space Science and Engineering Center of the University of Wisconsin – Madison, and is financially supported by EUMETSAT and NOAA. The workshop will be held from 29 October - 2 November 2018 in Madison, Wisconsin, USA. Please note that the workshop may be subject to a fee to cover the costs lunches and the workshop dinner. This fee is estimated to be around 150 € per participant.

More information on the 2<sup>nd</sup> Workshop of the ICWG can be found on the ICWG Wiki:

<a href="http://www.icare.univ-lille1.fr/crew/index.php/Meetings#CGMS_ICWG_workshop_2">http://www.icare.univ-lille1.fr/crew/index.php/Meetings#CGMS_ICWG_workshop_2</a>
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## Workshop Sessions

The workshop will cover a wide range of sessions concerning cloud parameter retrievals, their applications and related issues. The primary focus of the sessions will be on the topics that are addressed by the Topical Groups as these cover the most active research questions in our community. The Workshop Sessions for this meeting include:

- **Algorithms**  
*(including single and multiple sensor retrievals, such as , synergistic use of cloud products from microwave and visible infrared imager, radiative transfer modelling, methods to propagate and provide uncertainty estimates)*
- **Assessments**  
*(including assessment of level-2 products from polar orbiting and geostationary satellites for comparison days 13 June 2008, 19 August 2015 and 21 July 2016)*
- **Climate Applications**  
*(including assessments of level-3 climate data records of cloud parameters, aggregation methods, link to international activities such as GEWEX DAP and Obs4MIPS)*
- **Weather Applications**  
*(including the use of cloud products in numerical weather prediction, atmospheric motion winds, precipitation retrievals, severe weather and other applications of high spatial and temporal resolution cloud products from advanced geostationary imagers)*

### **Submission of Data for the Assessments**

Information on submitting data for the assessments will follow in a separate mail.

### **Submission of Abstracts**

More information on submitting abstracts will follow in the second announcement.

### **Registration**

More information on registering will follow in the second announcement.

### **Accommodation and Conference Venue**

More information on accommodations will follow in the second announcement.

## Further Information

### CGMS Advisory Panel

Kerry Meyer (NASA, USA); Stefan Bojinski (WMO, Switzerland); Sung-Rae Chung (KMA Korea); Lu Feng (CMA, China); Andrew Heidinger (NOAA, USA); N. Puviarasan (IMD, India); Rob Roebeling (EUMETSAT, Germany); Alexei Rublev (Roshydromet, Russia); Daisaku Uesawa (JMA, Japan)

### Co-Chairs:

Andrew Heidinger, NOAA:  
Rob Roebeling, EUMETSAT:

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### Rapporteur to CGMS:

Wu Dong, NASA:

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### Local organization:

Ralf Bennartz, SSEC/UW-Madison and Vanderbilt University: ralf.bennartz@vanderbilt.edu

### Location:

Place: : Madison, Wisconsin, USA  
Conference: : 29 October - 2 November 2018