

3rd Meeting Call

Third International Workshop on Space-based Snowfall Measurement (3rd IWSSM)

**30 March-2 April 2011
Grainau, near Munich, Germany**

Program Committee

Ralf Bennartz (University of Wisconsin)
Gail Skofronick Jackson (Goddard Space Flight Center)
Ulrich Löhnert (University of Cologne)
Paul Joe (Environment Canada)
Deborah Vane (Jet Propulsion Laboratory)
Jarkko Koskinen (Finnish Meteorological Institute)

Workshop website: <http://cimss.ssec.wisc.edu/iwssm/2011>

The program committee invites you to attend the 3rd International Workshop on Space-based Snowfall Measurement to be held in Grainau, Germany. The workshop is sponsored by the International Precipitation Working Group (IPWG), the GEWEX Radiation Panel (GRP), by NASA's CloudSat mission, and by NASA's Precipitation Measurement Missions (PMM) Program on behalf of the Global Precipitation Measurement (GPM) Mission.

The goal of the workshop is to bring together researchers focusing on the measurement of snowfall from space using active and passive microwave sensors for the purpose of assessing the state of the science and measurement technology and to recommend future directions in research and technology development. The topics of interest include instrument development, space-borne missions and concepts, retrieval techniques, assimilation systems, modeling of microwave radiative transfer within snow particles and snowy air, modeling of microphysical processes and ground validation.

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1) Workshop format

The workshop will focus around the topics identified in the outline above. A limited number of invited research presentations will set the stage for subsequent working group discussions where the state of the art will be discussed and future directions of research will be identified. Attendees will be asked to contribute to a workshop report that summarizes the findings of this workshop.

2) Draft Program

The workshop will be convened the morning of Wednesday, March 30, 2011 and end on the afternoon of Saturday, April 2, 2011.

Tuesday, March 29 – Arrival/registration

Wednesday, March 30 – Invited Overview Talks

8:00 – 8:30 Registration

8:30 – 10:30 Scientific presentations

Uli Loehnert	– Welcome and local organization
Volker Gaertner	– IPWG
Ralf Bennartz	– IWSSM-1/2 overview
Arthur Hou	– GPM
Tristan L’Ecuyer	– CloudSat

10:30 – 11:00 Coffee break

11:00 – 13:00 Scientific presentations

Simone Tanelli	– ACE
Anthony Illingworth	- EarthCare
Paul Joe	– PPM
Corinna Hoose	– Ice in global climate models
Axel Seifert	– Ice/snowfall physical parameterizations

13:00 – 14:00 Lunch break

14:00 – 16:00 Scientific presentations

Jean-Pierre Blanchet	– Precipitation processes
Andy Heymsfield	– Ice microphysics
Guosheng Liu	– Ice MW optical properties
Alessandro Battaglia	– Radar remote sensing of snowfall
Stefan Buehler	– Sub-millimeter

16:00 – 16:30 Coffee break

16:30 – 18:30 Scientific presentations

Catherine Prigent	– Surface emissivity
Gail Skofronick-Jackson	- Passive MW remote sensing and IOPs
Dmitri Moissev	– Ground validation
Working group formation	

19:30 Reception

Thursday, March 31

9:00 – 12:30	WG Meetings (Coffee break 10:30-11:00)
12:30 – 14:00	Lunch break
14:00 – 15:30	Plenary: Initial working group reports
15:30 – 16:00	Coffee break
16:00 – 18:00	WG Meetings

Friday, April 1

9:00 – 15:00	Visit Schneefernerhaus observation station
17:00 – 19:00	Working group meetings

Saturday, April 2

9:00 – 12:00	Final plenary session, working group reports, writing assignments
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3) Working groups

Applications (Chairs: Seifert, Blanchet)

- Critical measurements needed for: climate modeling, hydrology, ice microphysical modeling, QPE, NWP, other.
- What are the requirements for GV and field experiments

Radiative Properties of Falling Snow (Chairs: Liu, Heymsfield)

- Ice radiative properties modeling issues: Non-spherical particles, habit, size distributions
- Andy Heymsfield challenge on radar reflectivity modeling
- Supercooled liquid water
- Other forward modeling issues (e.g. emissivity)
- Radiative closure

Global and Regional Detection and Estimation (Chairs: Skofronick, L'Ecuyer)

- Retrieval issues Radar
- Radiometer synergy
- Current operational algorithms for detection/estimation
- What can we achieve within 3, 10 years?

Missions and Concepts (Chairs: Tanelli, Joe)

- Science to be addressed
- Technology and measurement synergies
- Technology gaps, next steps
- New spaceborne missions
- New ground-base remote sensing technology

Validation (Chairs: Hudak, Koskinen)

- New airborne and ground base technology
- Measurements for uncertainties, representativeness
- Field campaigns
- Regional/global validation approaches
- Long-term GV efforts
- Additional needs for validation
- International coordination

4) Workshop Registration

Registration for the workshop is now open at:

- Registration fee will be \$300 and can be paid by via our secure credit card payment form on the registration website. Go to the meeting website at <http://cimss.ssec.wisc.edu/iwssm/2011> and click on the Registration link in the top bar
- Late registration: For participants registering after 3/8/2011, registration fee will be \$400
- Hotel reservations will have to be made directly with the hotel.

5) Hotel information

The workshop will be held at the Hotel am Badersee in Grainau, Germany, where a set of 50 rooms has been blocked for the conference. Single rooms are available at Euro 82,- per night.

- Hotel reservations will have to be made directly with the hotel.
- Hotel website is: <http://www.hotelambadersee.de/en/>
- Booking code: “IPWG Snowfall”
- Booking instructions:
Phone: Call hotel and make reservation by phone: +49-8821-8210
Web: Use the online *contact* form:
<http://www.hotelambadersee.de/en/kontakt.php>
(Do **NOT** use the online *booking* form)
E-mail: info@hotelambadersee.de

6) Driving direction from Munich airport

Travel either by rental car or public transport (recommended). Details can be found on the workshop website: <http://cimss.ssec.wisc.edu/iwssm/2011/lodging.html>

7) Tour Schneefernerhaus

On Friday morning, a tour of the Environmental Research Station “Schneefernerhaus” (<http://www.schneefernerhaus.de/e-ufs.htm>), located in 2650 m ASL at the close-by Mt. Zugspitze, will be conducted during the meeting. It will comprise a demonstration of the ground-based snow, water vapor, liquid water, temperature and aerosol measurement facilities, which are available for ground validation.