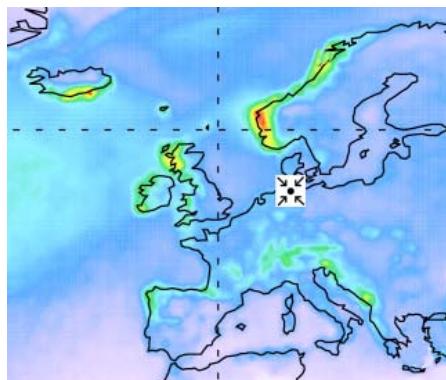


## Fifth Workshop of the International Precipitation Working Group

11-15 October 2010

KlimaCampus • Max-Planck-Institut für Meteorologie  
Hamburg, Germany

# Session Program



Max-Planck-Institut  
für Meteorologie



## Opening Session

**Monday, 11 October, 8.30 – 9.30**

**Registration**

ZMAW Building, Bundesstr. 53, Atrium/Hall 022/023

**Monday, 11 October, 9.30 – 10.15**

**Oral Session / Welcome:**

<b>Opening Remarks</b>	Christian Klepp
<b>Welcome and introduction to KlimaCampus and MPI-M</b>	Detlef Stammer (Inst. of Oceanog. ZMAW, Univ. of Hamburg)
<b>IPWG summary/perspective</b>	Christian Klepp/George Huffman
<b>GEO summary/perspective</b>	George Huffman (Point of Contact for GEO Precip Subtask)
<b>Workshop goals</b>	Christian Klepp/George Huffman
<b>Logistics</b>	Christian Klepp

## Session A The Big Picture, Climatology, Water Cycle

**Monday, 11 October, 10.30 – 12.30**

**Oral Session**

**10.30: Status and Overview on IPWG related Precipitation Data Sets**  
C. Kidd (Univ. of Birmingham, UK)

**10.50: SEAFLUX / Water Cycle**  
C. Clayson (Florida State Univ., USA)

**11.10: Global Ocean Freshwater Flux Components from Satellite, Re-analysis and In-Situ Climatologies**  
A. Andersson (Max Planck Institute for Meteorology, Germany), C. Klepp, K. Fennig, S. Bakan, H. Graßl, J. Schulz

**11.30: Quantifying Uncertainties in Satellite-based Global Precipitation Measurements**  
Y. Tian (Univ. of Maryland College Park/ESSIC and NASA/GSFC, USA) and C.D. Peters-Lidard

**11.50: The Global Precipitation Measurement (GPM) Mission: Overview and U.S. Status**  
A.Y. Hou (NASA/GSFC, USA)

**12.10: Global Flood and Landslide Nowcasts and Forecasts Using Multi-Satellite Precipitation Observations**  
R. Adler (Univ. of Maryland, USA), H. Wu, Y. Hong, F. Policelli, Y. Tian, H. Pierce

Monday, 11 October

## Session B Precipitation Data Sets

**Monday, 11 October, 14.00 – 15.30**

**Oral Session**

**14.00: The Global Precipitation Climatology Centre Serving the Hydro-Climatology Community**

A. Becker (DWD/GPCC, Germany), U. Schneider, A. Meyer-Christoffer, M. Ziese, P. Finger, B. Rudolf

**14.20: The Status of NOAA/NESDIS Precipitation Algorithms and Products**

R. Ferraro (NOAA/NESDIS/STAR, USA), S. Boukabara, K. Gopalan, J. Janowiak, R. Kuligowski, H. Meng, M. Sapiro, H. Semunegus, T. Smith, D. Vila, N-Y. Wang, F. Weng, L. Zhao

**14.40: EUMETSAT's Activities in Support of Precipitation Remote Sensing**

T. Heinemann (EUMETSAT, EU)

**15.00: Status of Japanese Precipitation Measuring Missions and Global Rainfall Map in Near-Real-Time**

M. Kachi (JAXA/EORC, Japan), T. Kubota, R. Oki

**15.20: Poster Introduction**

**Monday, 11 October, 15.30 – 17.30**

**Poster Session**

**The HOAPS-3 Climatology**

S. Bakan (ZMAW, Univ. of Hamburg), A. Andersson, C. Klepp, K. Fennig

**Rain Drop Size Densities over Land and over Sea**

K. Bumke (Leibniz-Inst. of Marine Sci. at the Christian-Albrechts Univ. zu Kiel, Germany)

**Historical Time Series of Merged Raingauge-Satellite Rainfall Data for Climate Risk Management Applications in Ethiopia**

T. Dinku (IRI and the Earth Inst. at Columbia Univ., USA), K. Hailemariam, D.F. Grimes

**Release of CM-SAF HOAPS v3.2 Products Based on Improved Data Record of SSM/I Radiances**

K. Fennig (DWD/SAF-Climate Monitoring, Germany), M. Schröder

**Globally Gridded Satellite (GridSat) Observations for Climate Studies**

K. Knapp (NOAA/NCDC, USA)

**Global Precipitation Data Access, Value-added Services and Scientific Exploration Tools at NASA GES DISC**

Z. Liu (NASA/GSFC DISC, USA), D. Ostrenga, G. Leptoukh, S. Kempler

**Towards a Climate Data Record of Precipitation from Satellite Microwave Imager Data**

M.R.P. Sapiro (Colorado State Univ., USA), W. Berg

**Recent Development of GPCC's Data Base and Quality-Control in Preparation of New Gridded Global Precipitation Analyses**

U. Schneider (DWD/GPCC, Germany), A. Meyer-Christoffer, M. Ziese, P. Finger, A. Becker, B. Rudolf

**Monday, 11 October**

**Implementation of a Methodology to Calibrate Ground Radars Using TRMM-PR over Argentina**

L. Vidal (Dept. de Ciencias de la Atmósfera y los Océanos, Ciudad Univ., Brazil), P. Salio, C.A. Morales

**A Climatology-Based Scheme for Special Sensor Microwave Imager (SSM/I) Quality Control: An Application to Monthly Rainfall Rates**

D. Vila (Centro de Previsão de Tempo e Estudos Climáticos - Rodovia Presidente Dutra, Brazil, and Univ. of Maryland/ESSIC/CICS, USA), R. Ferraro, H. Semunegus

**Gridded Data Products Provided and Interpolation Technique Utilized by the Global Precipitation Climate Centre (GPCC)**

M. Ziese (DWD/GPCC, Germany), U. Schneider, A. Meyer-Christoffer, P. Finger, A. Becker, B. Rudolf

## **Ice-Breaker Reception**

**Monday, 11 October, 17.30 – 20.30**

Hosted by KlimaCampus and MPI-M, sponsored by Eigenbrodt Umweltmesstechnik and METEK. All participants and accompanying persons are invited to this event.



## Session C Algorithms

**Tuesday, 12 October, 9.00 – 10.30**

**Oral Session**

- 9.00:** **Kalman-Filtered CMORPH using TRMM to Blend Satellite Rainfall**  
R.J. Joyce (Wylie Information Sys. and NOAA/MWS/CPC, USA), P. Xie, S.-H. Yoo
- 9.20:** **New GSMAp Over-Land Precipitation Retrieval Algorithm**  
K. Aonashi (Meteor. Res. Inst., Japan)
- 9.40:** **REFAME: A Combined Precipitation Estimation Technique using Adjusted-advection of Microwave Precipitation Estimates**  
A. Behrangi (California Inst. of Technology/JPL and Univ. of California Irvine, USA), S. Sorooshian, K. Hsu, T.J. Bellerby, G.J. Huffman
- 10.00:** **A Physically-Based Rainfall Rate Algorithm for the Global Precipitation Mission**  
S.-A. Boukabara (Joint Cent. for Sat. Data Assim. and NOAA/NESDIS/STAR) and  
K. Garrett
- 10.20:** **Poster Introduction**

**Tuesday, 12 October, 10.30 – 12.30**

**Poster Session**

**Can Recently Observed Precipitation Trends over the Mediterranean Area Be Explained by Climate Change Projections?**

A. Barkhordarian (GKSS Research Centre, Germany) and H. von Storch

**Enhancements in the Version 7 TRMM Multi-satellite Precipitation Algorithm (TMPA)**

G.J. Huffman (NASA/GSFC and Science Sys. and Appl., Inc., USA), D.T. Bolvin, E.J. Nelkin, R.F. Adler

**Characterization of Snow-Covered Terrains and Detection of Snowfall by Using the 183-WSL Retrieval Scheme**

S. Laviola (ISAC-CNR, Italy), S. D'Aurizio, E. Cattani, V. Levizzani

**Combining precipitation and soil moisture observations: a way for improved estimates of land surface water fluxes?**

A. Löw (Max Planck Inst. for Meteor., CliSAP, Germany)

**Improvement of GSMAp Passive Microwave Imager Rainfall Retrievals over the Mountainous Area in Japan**

S. Shige (Kyoto Univ., Japan), H. Ashiwake, A. Taniguchi, S. Kida, T. Kubota

**Precipitation Estimation for Typhoon Using Satellite Microwave Data**

N.-C. Yeh (Chung Cheng Inst. of Technol., Nat. Defense Univ., Taiwan), W.-J. Chen, J.-L. Wang, J.-C. Hu, G.-R. Liu, M.-D. Tsai

**Combining High-Resolution Satellite Estimates with Gauge Observations**

S.-H. Yoo (Wylie Inform. Systems and NOAA/NWS/CPC, USA) and P. Xie

**Investigations of the Moisture Budget of the Tropical Atmosphere Using ERA Interim Data**

M. Zahn (Univ. of Reading, UK), R.P. Allan

**Tuesday, 12 October**

## Session D Validation

**Tuesday, 12 October, 14.00 – 15.30**

**Oral Session**

- 14.00: Status of and Early Results from the IPWG/WGNE Model Precipitation Intercomparison**  
M.R.P. Sapiano (Colorado State Univ., USA)
- 14.20: Application of MET for the Verification of the NWP Cloud and Precipitation Products using A-Train Satellite Observations**  
P.A. Kucera (NCAR, USA), B. Brown, R. Bullock, C. Weeks
- 14.40: Performance of TRMM Level 2 and 3 Rainfall Retrievals in the Complex Terrain of South Asia**  
S.W. Nesbitt (Univ. of Illinois at Urbana-Champaign, USA) and K.A. Reed
- 15.00: Performance Evaluation of Precipitation Estimations over South-Eastern South America Considering Different Climatic Regions**  
P. Salio (FCEN- and CONICET-UBA, Argentina), D. Vila, Yanina G. Skabar, M. Paula Houbouchian, C. Matsudo
- 15.20: Poster Introduction**

**Tuesday, 12 October, 15.30 – 17.30**

**Poster Session**

**Rain-gauge Validation of Satellite Rainfall Estimates over Argentina**  
D. Barrera (CONICET/Univ. of Buenos Aires, Argentina) and S. G. Gómez

**Multi-Site and Multi-Objective Evaluation of High-Resolution Satellite-Rainfall Products**  
E. Habib (Univ. of Louisiana at Lafayette, USA), A.T. Haile, M. ElSadani, M. ElShamy, R. Kuligowski, Y. Tian

**Rain Intensity Spectra Distribution Over Germany and Western Africa**  
M. Itkin (Max Planck Inst. for Meteorology, KlimaCampus, Germany), R. Athmer, A. Löw

**Variability of Lightning Activity and Subsequent Convective Precipitation Derived from Satellite and Ground Based Sensors – Case Study**  
R. Iwanski (Inst. of Meteorology and Water Management/Sat. Remote Sensing Centre, Poland), B. Lapeta, D. Serafin

**Three Studies: Can Models Replicate Tropical Precipitation Cycles Accurately? How Do Models and Satellite Estimates Perform in the North Atlantic? Do We Really Influence Precipitation?**  
C. Kidd (Univ. of Birmingham, UK)

**Precipitation Validation over the Oceans**  
C. Klepp (KlimaCampus, Univ. of Hamburg, Germany)

**Temporally Homogeneous Rainfall Time Series for Africa - Methodology and Validation**  
R. Maidment, E. Tranavsky, D. Grimes (Univ. of Reading, UK)

**The Precipitation Product Validation Service Defined During the Development Phase of the Hydrological SAF**  
S. Puca (Italian Civil Protection Department), E. Labo, B. Lapeta, Ján Kanák, T. Maurer, A. Öztopal,

**Tuesday, 12 October**

F. Porcu', E. Roulin, I. Sonmez

**Verification of NOAA CPC RFE at Various Temporal and Spatial Resolutions in the Hindu Kush - Himalayan Region**

M.S. Shrestha, S.R. Bajracharya (Internat. Centre for Integrated Mountain Development, Nepal),  
P.K. Mool

**Rainfall Retrieval Validation over the Americas: The STAR Precipitation Validation Center**

D. Vila (CPTEC/INPE, Brazil, and Univ. of Maryland College Park/ESSIC, USA) and J. Janowiak

## **Session E New Technologies and Future Activities**

**Wednesday, 13 October, 9.00 – 10.40**

**Oral Session**

- 9.00:** **Current Status of Satellite Precipitation and GPM Activity at KMA**  
M.-L. Ou (KMA, Korea), J.-H. Kim
- 9.20:** **The GOES-R Rainfall Rate, Rainfall Potential, and Probability of Rainfall Algorithms**  
R.J. Kuligowski (NOAA/NESDIS/STAR, USA), Y. Li, Z. Zhang, R. Barnhill
- 9.40:** **Developing Winter Precipitation Algorithm over Land from Satellite Microwave and C3VP Field Campaign Observations**  
N.-Y. Wang (Univ. of Maryland College Park/ESSIC and NOAA/NESDIS/STAR, USA), K. Gopalan, R. Ferraro
- 10.00:** **Examination of CloudSat-Based Snowfall Profiles using C-band Ground Radar**  
F.J. Turk (California Inst. of Technology/JPL, USA), K.-W. Park, Z. Haddad, P. Rodriguez, D. Hudak
- 10.20:** **Megha-Tropiques: Mission and Algorithms Status**  
N. Viltard (LATMOS-IPSL CNRS-UVSQ, France)

**Wednesday, 13 October, 11.00 – 12.30**

**SSMIS Update**

- 11.00:** **Introduction to the SSMIS and the UPP**  
W. Bell (ECMWF, EU)
- 11.30:** **The UPP-CP**  
F.J. Turk (NASA/JPL)
- 11.40:** **The NESDIS/STAR Corrected SSMIS Dataset**  
D. Vila (Centro de Previsão de Tempo e Estudos Climáticos - Rodovia Presidente Dutra, Brazil, and Univ. of Maryland/ESSIC/CICS, USA)
- 11.50:** **SSMIS Data Postings in NESDIS**  
R. Ferraro (NESDIS/STAR, USA)
- 11.55:** **Developing CDRs for SSMIS**  
M.R.P. Sapiano (Colorado State Univ., USA)
- 12.10:** **SSMIS at RSS**  
K. Hilburn (Remote Sensing Sys., USA), presented by G. Huffman
- 12.15:** **Wrap-Up and Discussion**  
G. Huffman

**Wednesday, 13 October**

## Working Group Activities

**Wednesday, 13 October, 14.00 – 14.30**

**Introduction**

**14.00: CGMS summary/perspective**

V. Gärtnner (CGMS Rapporteur for IPWG)

**14.10: Introduction to WGs**

G. Huffman

**Wednesday, 13 October, 14.30 – 17.30**

**Breakout 1**

**New Technology** Room 1536B (Geomatikum)

**Operational Applications** Room 301

**Research Activities** Room 022/023

**Validation** Room 401

## Workshop Dinner

**Wednesday, 13 October, 18.45 – 23.15**

Sponsored by MABANAFT. All participants and accompanying persons are invited to attend a buffet dinner in the HafenCity Hamburg. Busses will depart for the dinner at 18.45 from the conference venue and will bring us back at approx. 23.15.



**Thursday, 14 October**

**Thursday, 14 October, 9.00 – 12.30**

**Breakout 2**

<b>New Technology</b>	Room 1536B (Geomatikum)
<b>Operational Applications</b>	Room 002
<b>Research Activities</b>	Room 022/023
<b>Validation</b>	Room 401

**Thursday, 14 October, 14.00 – 15.30**

**Breakout 3**

<b>New Technology</b>	Room 1536B (Geomatikum)
<b>Operational Applications</b>	Room 002
<b>Research Activities</b>	Room 022/023
<b>Validation</b>	Room 401

**Thursday, 14 October, 16.00 – 17.30**

**Closing Plenary**

<b>Reports by Working Groups and Discussion</b>	Working Group Chairs/Rapporteurs
<b>Overall Recommendations</b>	G. Huffman
<b>Recommendations to CGMS</b>	V. Gärtner
<b>Closing Statement</b>	G. Huffman
<b>Words of Thanks</b>	C. Klepp

**Friday, 15 October**

## Outing

### **Friday, 15 October, 11.00 – 15.00**

Experience with us the beautiful city of Hamburg on a convenient and entertaining tour that includes drinks and food, enjoying the “Waterkant” from both sides. The tour starts at 11:00 and ends at 15:00 at the conference venue. This schedule should allow you to catch late-afternoon flights if you wish to leave on Friday.

All participants are invited to take part in the excursion. However, we must ask that each person contributes 50 € for the event which may be paid in cash during the registration on Monday morning.