

2019 PMM Science Team Meeting
November 4 – 8, 2019
Indianapolis, IN

Monday, November 4, 2019

8:00 am START

-
- | | |
|---------------------|--|
| 8:00 am – 12:00 pm | XCAL Workgroup (Berg) – Corydon Room (2 nd Floor) |
| 8:30 am – 12:30 pm | JPST (Invitation only) – Indianapolis Room (2 nd Floor) |
| 10:30 am – 12:30 pm | Particle Scattering (Adams) – Vincennes Room (2 nd Floor) |
| 1:00 pm – 4:00 pm | DPR (Invitation only) (Iguchi) – Indianapolis Room (2 nd Floor) |
| 2:00 pm – 4:00 pm | Latent Heating Workgroup (Tao) – Corydon Room (2 nd Floor) |
| 3:00 pm – 6:00 pm | Multi-Satellite Workgroup (Huffman) – Vincennes Room (2 nd Floor) |
| 4:00 pm – 5:00 pm | PSD and GV: Snow Applications (Pettersen) – Indianapolis Room (2 nd Floor) |
| 4:00 pm – 6:00 pm | Hydrology Workgroup (Peters-Lidard) – Corydon Room (2 nd Floor) |
| 6:00 pm – 8:00 pm | Land Surface Workgroup (Turk/Ringerud) – Vincennes Room (2 nd Floor) |
| 6:00 pm – 8:00 pm | PSD and GV: Processes, Products, and Problems Workgroup (Williams & Munchak) – Indianapolis Room (2 nd Floor) |
| 6:00 pm – 8:00 pm | CEOS Precipitation-Virtual Constellation (Invitation only) (Skofronick-Jackson) – Corydon Room (2 nd Floor) |

7:00 am Conference registration and check-in, and poster setup (Victory Ballroom is located on 9th Floor)

Session 1: Programmatics (8:30 am – 11:30 am)

(Chair: D. Kirschbaum)

8:30 – 8:50 NASA HQ PMM Welcome and Program Status
 8:50 – 9:10 NASA GPM Status and Science
 9:10 – 9:30 Precipitation Processing System (PPS)
 9:30 – 9:50 Update on the Aerosols, Clouds, Convection, and Precipitation (ACCP) Study

G. Skofronick-Jackson
 S. Braun
 E. Stocker
 S. Braun

Break (30 min) 9:50 am – 10:20 am

(Chair: S. Braun)

10:20 – 10:35 JAXA PMM Program Status
 10:35 – 10:50 JAXA GSMaP & Applications Status
 10:50 – 11:10 JAXA GPM Science Status
 11:10 – 11:30 DPR Algorithm Status

R. Oki
 T. Kubota
 Y. Takayabu/N. Takahashi
 N. Takahashi

SCIENCE TEAM GROUP PICTURE

Lunch (1hr 30 min) 11:30 am - 1:00 pm

Session 2: GPM Algorithm Status Reports and Science (1:00 pm – 2:40 pm)

(Chair: W. Berg)

1:00 – 1:20 Radar
 1:20 – 1:40 Combined
 1:40 – 2:00 GPROF
 2:00 – 2:20 IMERG
 2:20 – 2:40 CSH Latent Heating

R. Meneghini
 W. Olson
 C. Kummerow
 G. Huffman
 W.-K. Tao

Break (30 min) 2:40 pm – 3:10 pm

Session 3: Applications: (3:10 pm - 4:30 pm)

(Chair: A. Barros)

3:10 – 3:30 Everyday Solutions using GPM Data: The Ins and Outs of GPM Applications
 3:30 – 3:45 Enabling the U.S. Army Streamflow Prediction Tool to use GPM products
 3:45 – 4:00 Improving climate services in developing nations with Ag Out - an enhanced IMERG-based Ag Outlook System
 4:00 – 4:15 GPM for Hydropower Reservoir Operation in Africa
 4:15 – 4:30 Discussion/Questions

D. Kirschbaum/A. Portier
 A. Tavakoly

 C. Funk
 M. Gebremichael

Session 4: Poster Session I (4:30 pm – 6:00 pm) Monument Hall which is located on the Lower Level

7:00 am Conference registration, check-in, and poster setup (Victory Ballroom is located on the 9th Floor)

Session 5: Science Reports I: (8:00 am - 9:45 am)

(Chair: G. Elsaesser)

- 8:00 – 8:15 Precipitation and Latent Heating in Tropical Easterly Waves
- 8:15 – 8:30 Variability in Convective Feature Populations with ITCZ Width in the Pacific
- 8:30 – 8:45 A conversation in convection between the GPM DPR and CAM5
- 8:45 – 9:00 Comparison of Oceanic Acoustic Rain Measurements with Downscaled IMERG Rainfall for the Study of Air-Sea Interaction
- 9:00 – 9:15 Dynamic Surface Information for GPM Retrievals
- 9:15 – 9:30 Developing Data Assimilated 4D Global Precipitation Products from the GEOS System in Support of the GPM Mission
- 9:30 – 9:45 Discussion/Questions

- E. Martin
- A. Rapp
- C. Schumacher
- E. Thompson
- C. Peters-Lidard
- M.-J. Kim

Break (30 min) 9:45 am – 10:15 am

Session 6: International Collaborations I (10:15 am – 11:45 am)

(Chair: G. Huffman)

- 10:15 – 10:30 Megha-Tropiques Status: Towards the End of the Mission?
- 10:30 – 10:45 Assessment of snowfall observational capabilities of GMI and ATMS through the exploitation of satellite-based and ground-based observational datasets
- 10:45 – 11:00 Variations of microwave scattering properties of precipitation in terms of frozen precipitation depth and surface temperature
- 11:00 – 11:15 The Contribution of Rain Gauges in the Calibration of the GPM-IMERG Product. Results from the First Validation over Spain
- 11:15 – 11:30 Detection of the Mixed Layer Top
- 11:30 – 11:45 Discussion/Questions

- R. Roca
- G. Panegrossi
- K. Aonashi
- F. Tapiador
- T. Iguchi

Lunch (1hr 40 min) (11:45 am - 1:15 pm)

Applications Lunch Meeting

Session 7: Science Reports II (1:15 pm – 2:45 pm)

(Chair: D. Cecil)

- 1:15 – 1:30 Toward Formulation of a Semi-Permanent Supersite for Cloud, Convection, and Precipitation Processes at Wallops Flight Facility
- 1:30 – 1:45 Using GPM-GV Data for Improved Ice and Mixed Phase Precipitation Retrievals from the GPM DPR
- 1:45 – 2:00 Estimating precipitation spatial variability using airborne HIWRAP observations
- 2:00 – 2:15 Investigating Vertical Precipitation Profiles Estimated from a Passive Microwave Algorithm, Separated by Land Surface Conditions
- 2:15 – 2:30 Characterizing and Communicating Global IMERG Error Estimates
- 2:30 – 2:45 Discussion/Questions

- T. Matsui
- S. Nesbitt
- C. Williams
- N. Utsumi/J. Turk
- D. Wright/D. Kirschbaum

Break (30 min) 2:45 pm – 3:15 pm

Session 8: Ground Validation I (3:15 pm – 4:20 pm)

- 3:15 – 3:30 GPM GV
- 3:30 – 4:20 Panel Discussion on Connecting GV and Algorithms
Panelists: Sarah Ringerud, Guosheng Liu, Patrick Gatlin, and Claire Pettersen (7 mins each)

S. J. Munchak
(Chair: Munchak)

Session 9: Poster Session II (4:30 pm – 6:00 pm) Monument Hall which is located on the Lower Level

Victory Ballroom (which is located on the 9th Floor)**Session 10: Science Reports III (8:00 am – 9:45 am)**

8:00 – 8:15	Graupel and Hail Algorithm for GPM-DPR
8:15 – 8:30	The OpenSSP Snow Particle and Scattering Database: Current Status and Future Plans
8:30 – 8:45	Enhanced Computational Capabilities of the Scattering Model NESCoP to Accurately Calculate SSPs of Large Realistic Hydrometeors
8:45 – 9:00	Beyond the Pixel: Pattern-oriented Approaches for Improving and Validating Precipitation Retrievals
9:00 – 9:15	A Preliminary Evaluation of the GPM Full-swath Combined Precipitation Retrievals
9:15 – 9:30	Assessment of Dual-Frequency Radar for Retrieval of Snow Properties
9:30 – 9:45	Discussion/Questions

(Chair: N. Wood)

V. Chandrasekar

I. Adams

I. Fenni

E. Foufoula-Georgiou

M. Grecu

L. Liao/R. Meneghini

Break (30 min) 9:45 am - 10:15 am**Session 11: International Collaborations II (10:15 am – 11:45 am)**

10:15 – 10:30	Ongoing Efforts on Precipitation Dataset Assessment
10:30 – 10:45	Current status of GPM ground validation over Korea
10:45 – 11:00	Density of snowflakes based on surface observations: Comparison between snow particles at GPM GV sites CARE and Hyytiälä
11:00 – 11:15	Ground Validation Activities at CPTEC/INPE: How GPM constellation can retrieve diurnal cycle over Brazilian territory?
11:15 – 11:30	Improvement of the Heavy Orographic Rainfall Retrievals for Microwave Radiometers
11:30 – 11:45	Discussion/Questions

(Chair: C. Kidd)

H. Masunaga

J. Park

A. von Lerber

D. Vila

S. Shige

Lunch (1hr 40 min) (11:45 am - 1:15 pm)**Session 12: Science Reports IV (1:15 pm – 2:30 pm)**

1:15 – 1:30	Preliminary Results: Using GPM to Quantify Moisture Transport in Arctic Cyclones
1:30 – 1:45	The Precipitation Characteristics of Global MODIS Cloud Regimes and Tropical Regime Aggregates
1:45 – 2:00	A Framework for Systematic Assimilation of GPM DPR observations to improve Orographic QPF
2:00 – 2:15	Overview of ER-2 Radar Observations, WRF, and Radar Retrievals from IPHEX and OLYMPEX
2:15 – 2:30	Discussion/Questions

(Chair: S. Rutledge)

L. McPartland

L. Oreopoulos

A. Barros

G. Heymsfield

Break (30 min) 2:30 pm – 3:00 pm**Session 13: Science Reports V (3:00 pm – 4:10 pm)**

3:00 – 3:15	An Update on NOAA Operational Precipitation Products and NOAA's Contributions to the PMM Science Team
3:15 – 3:30	Snowfall Observations in the Upper Great Lakes: A Five-Year Retrospective
3:30 – 3:45	The Influence of Atmospheric Rivers on High-latitude Wintertime Precipitation
3:45 – 4:00	Assessing GPM with MRMS for Validation and Improvement: Current Status and Future Directions
4:00 – 4:10	Discussion/Questions

(Chair: S. Tanelli)

R. Ferraro

M. Kulie

C. Pettersen

P. Kirstetter

Session 14: PMM Meeting Business and Wrap-Up (4:10 pm – 5:00 pm)

4:10 – 4:35	Working Group Reports
4:35 – 4:50	Open Discussion and Action Item review
4:50 – 5:00	Closing remarks

S. Braun

G. Skofronick-Jackson

- 8:00 am – 5:00 pm Combined Algorithm Team (W. Olson) – Vincennes Room (2nd Floor)**
- 8:00 am – 5:00 pm Radar Algorithm Team (T. Iguchi/B. Meneghini) – Corydon Room (2nd Floor)**
- 9:00 am – Noon Radiometer Algorithm Team (C. Kummerow) – Circle City 3 Room (3rd Floor)**
- 9:00 am – 5:00 pm DPR (Invitation only) (Takahashi/Meneghini) – Indianapolis Ballroom (2nd Floor)**