

Agenda of the IPWG10/IWSSM6 meeting (Version June 10, 2022)

Paris	DC	Tokyo	Local time	Monday	Tuesday	Wednesday	Thursday	Friday
16:30	10:30	23:30	8:30	Registration (1h)	Session 4 (1h30) - Machine Learning Approaches and New Product Versions	Session 7 (1h30) - Satellite Precipitation Algorithm Improvement	Session 10 (1h30) - Active Microwave Observations and Algorithm Improvements	
17:00	11:00	0:00	9:00	"	"	"	"	Social event
17:30	11:30	0:30	9:30	Opening: welcome from host, objectives, agenda	"	"	"	"
18:00	12:00	1:00	10:00	Session 1 (2h) - Current and Future satellite missions	Coffee break	Coffee break	Coffee break	"
18:30	12:30	1:30	10:30	"	Community subject 1 (1h30) – Introduction to the 4 round tables	Community subject 2 (1h30) - Training and Outreach on satellite-based products to monitor weather, climate, and extreme events.	Session 11 (1h30) - Novel Validation Efforts	"
19:00	13:00	2:00	11:00	"	"	"	"	"
19:30	13:30	2:30	11:30	"	"	"	"	"
20:00	14:00	3:00	12:00	LUNCH TIME	LUNCH TIME	LUNCH TIME	LUNCH TIME	"
20:30	14:30	3:30	12:30	"	"	"	"	"
21:00	15:00	4:00	13:00	Session 2 (2h) - Passive Microwave Algorithm Development and Improvement	Session 5 (2h) - High Latitude Precipitation	Round Tables 1, 2, 3, 4 (1st session)	Session 12 (2h) - Satellite Precipitation Products Applications: Climate Service and Hydrologic Modeling	"
21:30	15:30	4:30	13:30	"	"	"	"	"
22:00	16:00	5:00	14:00	"	"	Round Tables 1, 2, 3, 4 (2nd session)	"	"
22:30	16:30	5:30	14:30	"	"	"	"	"
23:00	17:00	6:00	15:00	Poster session / Coffee break	Poster session / Coffee break	Poster session / Coffee break	Poster session / Coffee break	"
23:30	17:30	6:30	15:30	"	Session 6 (2h) - Orographic precipitation	Session 8 (1h) - Errors and Uncertainties in Satellite Precipitation Products	Feedback from WGs	"
0:00	18:00	7:00	16:00	Session 3 (1h30) - Forecasting Precipitation: Current Challenges and Future Opportunities	"	"	"	"
0:30	18:30	7:30	16:30	"	"	Session 9 (1h30) - Temporal & Spatial Variations	Wrap up	"
1:00	19:00	8:00	17:00	"	"	"	"	"
1:30	19:30	8:30	17:30	ICE BREAKER		"		"

Oral presentations:

Monday June 13

Session 1 (2h) Current and Future Satellite Missions – Co-chairs: Veljko Petkovic and Sarah Ringerud

ID	UTC	Local time	First author	Title	
1.01	16:00	10:00	McCarty, Will	NASA Headquarters Perspective on Satellite Precipitation Measurements	Remote
1.02	16:12	10:12	Braun, Scott	Status of the GPM Mission and the NASA Atmosphere Observing System (AOS)	Remote
1.03	16:24	10:24	Accadia, Christophe	The EUMETSAT Polar System - Second Generation (EPS-SG) Microwave Imaging Missions: MicroWave Imager (MWI) and Ice Cloud Imager (ICI)	Remote
1.04	16:36	10:36	Kachi, Misako	Development of the Advanced Microwave Scanning Radiometer 3 (AMSR) onboard the GOSAT-GW satellite	Remote
1.05	16:48	10:48	Kubota, Takuji	Recent Progresses of the Global Precipitation Measurement (GPM) Mission in Japan	Remote
1.06	17:00	11:00	Springmann, John	Developing The First Operational Global Satellite Constellation of Ka-Band Precipitation Radars	Remote
1.07	17:12	11:12	van den Heever, Susan	The INCUS Mission	In person
1.08	17:24	11:24	Braun, Scott	The Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats (TROPICS) mission: Mission status and Pathfinder results	Remote
1.09	17:36	11:36	Kidd, Chris	Initial results and validation of the TROPICS precipitation product.	In person
1.10	17:48	11:48	Turk, Joe	Evaluation of the COWVR+TEMPEST Channel Set for Estimating Precipitation Structure over a Variety of Surface Conditions	In person

Session 2 (2h) - Passive Microwave Algorithm Development and Improvement – Co-chairs: Ali Behrangi and Jie Gong

ID	UTC	Local time	First author	Title	
2.01	19:00	13:00	Kummerow, Chris	The GPM GPROF V6 Database	In person
2.02	19:12	13:12	Petkovic, Veljko	Precipitation Type from PMW observations: Addressing Uncertainties Through Bayesian Deep Learning	In person
2.03	19:24	13:24	Prasanth, Sai	Kernel flows to infer the structure of convective storms from satellite passive microwave observations	In person
2.04	19:36	13:36	Ringerud, Sarah	Improved land surface characterization for the next generation of passive microwave precipitation retrievals	In person
2.05	19:48	13:48	You, Yalei	Improving Cross-Track Scanning Radiometers' Precipitation Retrieval over Ocean by Morphing	In person
2.06	20:00	14:00	Masunaga, Hiro	Non-uniform Local Time Coverage of Polar-orbiting Passive Microwave Observations in Global Precipitation Datasets	Remote
2.07	20:12	14:12	Aonashi, Kazumasa	A new GSMaP MWI algorithm considering the frozen precipitation depth and the convective precipitation fraction	Remote
2.08	20:24	14:24	Pfreunds Schuh, Simon	First evaluation of GPROF V7 and the neural network based GPROF-NN retrievals against gauge corrected radar measurements	Remote
2.09	20:36	14:36	Kirstetter, Pierre	Probabilistic Quantitative Precipitation Estimates	Remote

Session 3 (1h30) - Forecasting Precipitation: Current Challenges and Future Opportunities – Co-chairs: Joe Munchak and Susan van den Heever

ID	UTC	Local time	First author	Title	
3.01	22:00	16:00	Steward, Jeff	Data assimilation observation system simulation experiments (OSSEs) of Tomorrow.io's planned spaceborne radar constellation using statistical observation operators	In person
3.02	22:12	16:12	Lee, Yoonjin	Latent heating profiles from GOES-16 and its impacts in precipitation forecast	In person
3.03	22:24	16:24	Barreyat, Marylis	Propagating non linearities of the observation operator for microwave radiances within an all-sky data assimilation system	In person
3.04	22:36	16:36	Johnson, Benjamin	Precipitation Impacted Radiance Simulations using CRTM: Current and Future Capabilities	In person
3.05	22:48	16:48	Scanlon, Tracy	Developments in the all-sky assimilation of microwave imagers at ECMWF	In person
3.06	23:00	17:00	Villeneuve, Ethel	Statistical study of inconsistencies between infrared and microwave cloudy simulations	In person

Tuesday June 14

Session 4 (1h30) - Machine Learning Approaches and New Product Versions – Co-chairs: Haonan Chen and Ross Maidment

ID	UTC	Local time	First author	Title	
4.01	14:30	08:30	King, Fraser	DeepPrecip: A deep neural network for retrievals of precipitation	In person
4.02	14:42	08:42	Adams, Ian	CoSMIR Along-Track scan for cloud tomography	In person
4.03	14:54	08:54	Tan, Jackson	A Convective or Stratiform Prototype Scheme for IMERG	In person
4.04	14:06	09:06	Liu, Shuyan	Evaluation and Improvement of MiRS Precipitation Retrievals over the CONUS Using Machine Learning Approaches	Remote
4.05	15:18	09:18	Huffman, George	Status and Plans for IMERG on the Verge of Version 07	Remote
4.06	15:30	09:30	Nelkin, Eric	Introducing the GPCP Version 3.2 Daily Precipitation Dataset	Remote
4.07	15:42	09:42	Huffman, George	Advancing GPCP Products to Version 3.2	Remote

Community Subject 1 (1h30) - Introduction to the 4 round tables

ID	UTC	Local time	First author	Title	
CS1.01	16:30	10:30	Maggioni, Viviana and Chambon, Philippe	Introduction to the 4 Round tables	In person
CS1.02	16:40	10:40	Turk, Joe / Ferraro, Ralph	Introduction of the round table on the MW constellation What is CGMS? What are the expectations of CGMS regarding IPWG community work?	In person
CS1.03	17:00	11:00	Kidd, Chris	Introduction to the round table on Community impact and ARDs. What is CEOS? + Discussion on Analysis Ready Datasets? IPWG contribution to the requirements definition of ARDs.	In person
CS1.04	17:20	11:20	Rossi, Pekka	Introduction to the round table on Validation. WMO activities on ground-based weather radars and remote sensing precipitation observations	Remote
CS1.05	17:40	11:40	Henry, Manju	Introduction to the round table on instruments. Developments and Preliminary Results of a Hyperspectral Microwave Sounder (HYMS)	Remote

Session 5 (2h) - High Latitude Precipitation – Co-chairs: Benjamin Johnson and Yoonjin Lee

ID	UTC	Local time	First author	Title	
5.01	19:00	13:00	Behrangi, Ali	High Latitude Precipitation Analysis and Considerations in the Latest GPCP products (V3.2)	In person
5.02	19:12	13:12	Fan, Yongzhen	Enhancement of Snowfall Detection for NOAA Snowfall Product through Machine Learning	In person
5.03	19:24	13:24	Kuo, KS	Warehousing and Disseminating Single-Scattering Properties for Particulate Matter Remote Sensing	In person
5.04	19:36	13:36	Meng, Huan	Recent Developments to NOAA Snowfall Rate Products	In person
5.05	19:48	13:48	Milani, Lisa	Analysis of 166 GHz ice scattering signal in snowfall events over ocean	In person
5.06	20:00	14:00	Ori, Davide	Towards a database of ensemble rather than single-scattering properties of ice and snow particles	Remote
5.07	20:12	14:12	Grazioli, Jacopo Berne, Alexis	MASCDB: a database of images, descriptors, and microphysical properties of individual snowflakes in free fall	Remote
5.08	20:24	14:24	Geer, Alan	Prospects for assimilating cloud and precipitation at high latitudes in global weather forecasting	Remote
5.09	20:36	14:36	Panegrossi, Giulia	The ESA RainCast Study For Global Snowfall Monitoring: New Concepts And Perspectives in view of the Arctic Weather Satellite mission	Remote
5.10	20:48	14:48	Utsumi, Nobuyuki	Lack of snow cover scattering signature over south Greenland and its impact on GSMaP passive microwave snowfall retrieval	Remote

Session 6 (2h) - Orographic Precipitation – Co-chairs: Berry Wen and Fraser King

ID	UTC	Local time	First author	Title	
6.01	21:30	15:30	Chen, Haonan	Ensemble learning for bias correction of satellite retrievals of orographic precipitation	In person
6.02	21:42	15:42	Derin, Yagmur	Evaluation of IMERG over CONUS complex terrain using environmental variables	In person
6.03	21:54	15:54	Gonzalez, Ryan	High Resolution ? Snow Problem	In person
6.04	22:06	16:06	Samykanu, Venkadesh	Complex topographic features of CHIRPS based precipitation product against IMD dataset over Tamil Nadu, India	In person
6.05	22:18	16:18	Wood, Norman	Assessing satellite-based radar capabilities for orographic snowfall process studies	Remote
6.06	22:30	16:30	Shige, Shoichi	Use of low-level static stability for improvement of the heavy orographic rainfall estimates in the GSMaP algorithm for microwave radiometers	Remote
6.07	22:42	16:42	Kato, Fumi	Reexamination of topographic influence on precipitation associated with the Madden-Julian Oscillation over the Maritime Continent	Remote
6.08	22:54	16:54	Ferrone, Alfonso	Orographic precipitation in the vicinity of Princess Elisabeth Antarctica station as seen by a transect of MRR-PROs	Remote
6.09	23:06	17:06	Chen, Yun-Lan	An IR-PMW Blended PDF-matching Technique over the Asia-Pacific and its improvement by incorporating with surface data	Remote
6.10	23:18	17:18	Aoki, Shunsuke	Influences of Wind Speed on the Diurnal Cycle of Precipitation over the Coastal Areas Revealed by Spaceborne Precipitation Radars	Remote

Wednesday June 15

Session 7 (1h30) - Satellite Precipitation Algorithm Improvement – Co-chairs: Rick Schulte and Yagmur Derin

ID	UTC	Local time	First author	Title	
7.01	14:30	08:30	Xie, Pingping	Retrospective Processing for the Second Generation CMORPH: Experiments for the Pilot Period	In person
7.02	14:42	08:42	Maidment, Ross	Improvements in satellite rainfall estimation for enhanced long-term rainfall monitoring and early warning over Africa	In person
7.03	14:54	08:54	Upadhyaya, Shruti	Improving Precipitation Estimation with the GOES-16 Advanced Baseline Imager: Algorithm and Evaluation	In person
7.04	14:06	09:06	Funk, Chris	Introducing and evaluating two new station-enhanced and interoperable gridded satellite precipitation datasets: the IMERGlate based CHIMES and the Geostationary IR-based CHIRPS3	In person
7.05	15:18	09:18	Kumar, Ashish	Soil Moisture driven Machine Learning Approach to Correct Near Real Time Satellite based Rainfall Estimates: A case study in Hirakud Catchment in Mahanadi Basin, India	Remote
7.06	15:30	09:30	Lahuerta, Jose Alberto	Satellite derived precipitating products based on a principal component analysis	Remote
7.07	15:42	09:42	Oliveira, Romulo	Sensitivities of daily accumulated satellite rainfall estimates to the GPM PMW satellite constellation configurations	Remote

Community subject 2 (1h30) - Training and Outreach on satellite-based products to monitor weather, climate, and extreme events.

ID	UTC	Local time	First author	Title	
CS2.01	16:30	10:30	Connell, Bernie	WMO-CGMS Virtual Laboratory for Education in Satellite Meteorology (VLab): Who are we and what do we do?	In person
CS2.02	16:45	10:45	Caesar, Kathy-Ann	Challenges and Successes for the Eastern Caribbean and Small Island Nations.	Remote
CS2.03	17:05	11:05	Vila, Daniel	WMO Coordination Group on Satellite Data Requirements for the Americas: How can satellite-based products help users?	In person
CS2.04	17:20	11:20	Portier, Andrea	NASA GPM Applications and Outreach Activities: Lessons Learned from Stakeholder Engagement.	Remote
CS2.05	17:40	11:40	Kuleshov, Yuriy	The Space-based Weather and Climate Extremes Monitoring (SWCEM) program: Drought Monitoring over Papua New Guinea	Remote

Session 8 (1h) - Errors and Uncertainties in Satellite Precipitation Products – Co-chairs: Runze Li and Ishrat Dollan

ID	UTC	Local time	First author	Title	
8.01	21:30	15:30	Bogerd, Linda	The effect of different methods of sampling reference precipitation estimates on the performance evaluation of satellite-based precipitation estimates	In person
8.02	21:42	15:42	Goldenstern, Eric	Assessing the State Dependency of Infrared Satellite Precipitation Retrieval Errors	In person
8.03	21:54	15:54	Guilloteau, Clement	Unraveling the Dynamical Nature of Errors in Satellite Precipitation Products	In person
8.04	22:06	16:06	Li, Zhe	The Performance of IMERG Over the Eastern Pacific Fresh Pool:A Comparative Evaluation Using In Situ and Space-based Observations	In person
8.05	22:18	16:18	Monsalve, Andres	Understanding GPROF Atmospheric Regime-Dependent Biases	In person

Session 9 (1h30) - Assessing Precipitation Temporal and Spatial Variation – Co-chairs: Lisa Milani and Marylis Barreyat

ID	UTC	Local time	First author	Title	
9.01	22:30	16:30	Adler, Robert	Inter-annual Variations of Tropical Ocean Rainfall—Differences Among Satellite Estimates	In person
9.02	22:42	16:42	Kidd, Chris	Representation of precipitation across spatial and temporal scales	In person
9.03	22:54	16:54	Khadgarai, Sunil Kumar	Regional Variability of Precipitation characteristics in Tropical Cyclones over the North Indian Ocean from GPM-DPR measurements	Remote
9.04	23:06	17:06	Kneifel, Stefan	How often and how strongly does riming occur in non-convective clouds?	Remote
9.05	23:18	17:18	Gu, Guojun	Interdecadal Variability and Trends in Global Precipitation During the Satellite Era	Remote
9.06	23:30	17:30	Pettersen, Claire	The Critical Role of Euro-Atlantic Blocking in Promoting Snowfall in Central Greenland	Remote
9.07	23:42	17:42	Greco, Mircea	On the relationships between the vertical distribution of precipitation in deep convection and the large-scale environment	Remote
9.08	23:54	17:54	Sabetghadam, Samaneh	Long-term distribution of snow depth in the Middle-East high mountains	Remote

Thursday June 16

Session 10 (1h30) – Improving Satellite Precipitation Retrievals and Algorithms – Co-chairs: Shruti Upadhyaya and Jackson Tan

ID	UTC	Local time	First author	Title	
10.01	14:30	08:30	Heymsfield, Andy	Comparison of Snowfall Rates from CloudSat, GPM, and Quasi-Direct Measurements from IMPACTS	In person
10.02	14:42	08:42	Schulte, Rick	The Impact of DSD Assumptions on Satellite Estimates of Drizzle and Light Rain	In person
10.03	14:54	08:54	Williams, Christopher	Three Research Topics to Advance Satellite Precipitation Retrieval Algorithms	Remote
10.04	14:06	09:06	Masaki, Takeshi	Improvement of precipitation type classification for spaceborne radars using a ground-based doppler radar over the Tibetan Plateau	Remote
10.05	15:18	09:18	Shimizu, Riku	Reduction of blind zone for GPM DPR	Remote
10.06	15:30	09:30	Li, Yaping	Assessing Geostationary Lightning Mapper Data in the GOES-R Rainfall Rate Algorithm	Remote
10.07	15:42	09:42	Billault-Roux, Anne-Claire	Dual-frequency spectral radar retrieval of snowfall microphysics: a deep-learning based approach	Remote

Session 11 (1h30) - Novel Validation Efforts – Co-chairs: Clement Guilloteau and Linda Bogerd

ID	UTC	Local time	First author	Title	
11.01	16:30	10:30	Watters, Daniel	The GPM Validation Network: Validating IMERG with Ground-Based Radars	In person
11.02	16:42	10:42	Wen, Berry	Systematic evaluation of GPM DPR and WSR-88D over the contiguous United States	In person
11.03	16:54	10:54	Chandrasekar, V	Validation of GPM DPR Surface Snowfall Product and the Global Distribution	In person
11.04	17:06	11:06	Gosset, Marielle	Assessment of GPM era products against high resolution rain maps from Commercial Microwave Links and radar in Tropical areas.	Remote
11.05	17:18	11:18	Schroder, Marc	OceanRAIN Release 2.0 Global Ocean Surface Reference Data for all Water Cycle Components	Remote
11.06	17:30	11:30	Kirstetter, Pierre	Integrated Multi-Satellite Evaluation: Impact of Precipitation Characteristics on Spaceborne Precipitation Estimation	Remote

Session 12 (2h) - Satellite Precipitation Products Applications: Climate Service and Hydrologic Modeling – Co-chairs: Robert Adler and Janice Bytheway

ID	UTC	Local time	First author	Title	
12.01	19:00	13:00	Dinku,Tufa	Value of Satellite Rainfall Estimate in Enhancing Climate Services in Africa	In person
12.02	19:12	13:12	Liu, Zhong	An Update on NASA GES DISC's Precipitation Products and Services	In person
12.03	19:24	13:24	Koçak, Ramazan	Detecting Igdir Floods with GPM IMERG data	Remote
12.04	19:36	13:36	Woods, Devon	Using A Hydrologic Flash Flood Modeling Framework to Establish Robust Analyses of Satellite Precipitation Products	Remote
12.05	19:48	13:48	Schneider, Udo	Updated gridded datasets V.2022 provided by the Global Precipitation Climatology Centre (GPCC)	Remote
12.06	20:00	14:00	Horna, Natalia	Multi-dataset optimization of a rain gauge network for a poorly observed watershed	Remote
12.07	20:12	14:12	Ehsani, Mohammad Reza	Nowcasting-Nets: Representation Learning for Satellite-based Precipitation Nowcasting using Convolutional and Recurrent Neural Networks	Remote
12.08	20:24	14:24	Satge, Frederic	Are gridded precipitation datasets a good option for streamflow simulation across the Juruá river basin, Amazon?	?

Poster presentations

ID	First author	Title
P.01	Gong, Jie	A GCM-Oriented Synergistic Passive Microwave Diurnal Ice/Snow Cloud Retrieval Product using CloudSat/CALIPSO as the Baseline
P.02	Gong, Jie	A ML/AI Based GMI-only Precipitation Type Classification Algorithm
P.03	Kim, Jiseob	Implementation of Passive Microwave Radiative Transfer Simulation Consistent with Various Multimoment Bulk Microphysics Parameterizations
P.04	Dong-Cheol, Kim	Algorithm for rainfall rate from AMI onboard GEO-KOMPSAT-2A satellite: Replacing proxy a-priori databases with AMI observation
P.05	Munchak, Joe	Forward Modeling and Retrieval OSSEs for the Tomorrow.io Radar Constellation
P.06	Mangla, Rohit	Improving active sensor capability with melting layer simulations within the RTTOV-SCATT radiative transfer model
P.07	Geer, Alan	Improved snow, graupel and ice cloud modelling in RTTOV-SCATT v13.0
P.08	Dollan, Ishrat	Patterns of projected extreme precipitation indices and associated trends over the Contiguous U.S.
P.09	Kim, Donghyeck	Distributions of latent heating from the spectral latent heating data during the 2015/16 quasi-biennial oscillation disruption
P.10	Afzali Gorooh, Vesta	Evaluation of New Satellite Precipitation Dataset: PDIR-Climate Data Record
P.11	Wang, Nai-Yu	Potential SmallSat GNSS-Reflectometry Flood Inundation Mapping Applications
P.12	Arulraj, Malarvizhi	Assessing the Impact of Precipitation Vertical Structure in the Satellite Precipitation Retrievals
P.13	Bytheway, Janice	Evaluating Satellite Precipitation Estimates over Ocean using Passive Aquatic Listeners
P.14	Kirstetter, Pierre	Evaluating the Intrinsic Uncertainty of Satellite Precipitation Estimates at their Native Resolution
P.15	Li, Runze	A new point-to-object method to evaluate the IMERG precipitation