



WMO OCP Innovation Webinar, 14 December 2021

Innovation and Cutting-edge Activities in Space-borne Precipitation Measurements and Application

Background: The Open Consultative Platform (OCP), established at the 18th World Meteorological Congress in 2019, serves as an open, constructive and participatory framework for addressing the grand challenges of the global weather enterprise. In the spirit of collaboration, mutual respect, and trust, the Platform enables all stakeholders to stay abreast of issues and opportunities, both institutional and technological, to motivate collaborative, win-win approaches and to nurture innovation. The cooperation paradigm incorporates active sharing of ideas and interacting with each other to move from isolated actions within a single stakeholder to coordinated initiatives developed and shared across sectoral and organizational boundaries.

Since February 2020, a series of WMO's OCP Innovation Seminars have provided opportunities to public, private, academic, and civil sectors to share innovative practices and ideas. We expect these Seminars to contribute to further engagement among these sectors for even better meteorological services to contribute to the Sustainable Development Goals, climate change mitigation, and disaster risk reduction.

The upcoming OCP Innovation Seminar will bring together the executive and technical leaders of Tomorrow.io, the WMO and CGMS experts for a robust discussion on the emerging needs, recent advancement and potential impacts of the space-based observing system for precipitation observation.

(Register [HERE](#) to get Zoom link by email)

Date of event: 15:00 – 16:30 UTC/GMT; 16:00 – 17:30 CET, Tuesday, 14 December 2021

Where: 1.5-hour virtual webinar open to the public on Zoom

Organizer: WMO

Outline: More than 5 billion people worldwide live outside of basic weather radar coverage. Tomorrow.io has recently announced its plan to bring critical weather radar coverage to the entire globe by deploying the first-ever operational satellite constellation equipped with precipitation radars, aiming to provide high-quality weather intelligence to every part of the world.¹ At our next OCP innovation webinar, Tomorrow.io leaders will provide the audience with details of its constellation. WMO and the Coordination Group for Meteorological Satellites (CGMS) will present programs and activities related to the current and future space-based global observing system, their impacts on operational and research needs (including for precipitation), and other new observations expected to emerge in the future. This Innovation Webinar provides the opportunity for participants to learn about the future and potential of satellite observations of the Earth System.

¹ Relevant news releases:

<https://spacenews.com/tomorrow-io-orders-demo-satellites-for-rain-tracking-constellation/>
<https://www.cnn.com/2021/09/30/world/us-weather-satellite-deal-scn/index.html>



Biography of invited speakers:

From Tomorrow.io

Rei Goffer, Co-Founder and Chief Strategy Officer, Tomorrow.io



Mr. Rei Goffer is the co-founder and Chief Strategy officer at Tomorrow.io. His portfolio of activities include Tomorrow.Space and the company's Government business unit. Rei also serves on the Board of Tomorrownow.org, the non-profit partner of Tomorrow.io focusing on climate security for underserved communities. Prior to Tomorrow.io, Rei served for 10 years in the Israeli Air Force as an F16 navigator, and division head in the R&D command.

Thomas Cavett, Director of Business Operations - Space, Tomorrow.io



Mr. Thomas Cavett is the Director of Business Operations – Space at Tomorrow.io where he leads the strategy and operations of the Space and Government teams as well as their Government Relations team focused on policy engagement. Thomas is a former strategy consultant at McKinsey & Company where he worked across a variety of industries including medical device manufacturing, mining, cybersecurity, private equity, and advanced industrial services.

Jeff Steward, Ph.D., Principal Scientist for NWP Data Assimilation, Tomorrow.io



Dr. Jeff Steward is an experienced scientist skilled in data assimilation, statistics, mathematical modeling, numerical analysis, and atmospheric science. He is a strong research professional with a Ph.D. focused in Computational Science with an emphasis in Atmospheric Science from Florida State University. Previously he was a Software Engineer at the National Center for Atmospheric Research and a Radar Scientist at NASA's Jet Propulsion Laboratory.

From CGMS International Precipitation Working Group (IPWG)²

Viviana Maggioni, PhD., Co-chair of IPWG, Associate Professor of Environmental and Water Resources Engineering, George Mason University



Dr. Viviana Maggioni, PhD. is Associate Professor of Environmental and Water Resources Engineering at George Mason University. Dr. Maggioni received her B.S. and M.S. degrees in Environmental Engineering from the Politecnico di Milan, Italy, in 2003 and 2006, respectively, and her Ph.D. degree in Environmental Engineering from the University of Connecticut, Storrs, in 2012. Her research interests lie at the intersection of hydrology and remote sensing. In particular, she is interested in the application of remote sensing techniques to estimate and monitor hydrological variables. Her work has direct applications in water resources management, weather and climate prediction, as well as agriculture and irrigation practices. She currently serves as Chair of the AGU (American Geophysical Union) Precipitation Committee, co-Chair of the International Precipitation Working Group, Editor of the Journal of Hydrometeorology and

²The International Precipitation Working Group (IPWG) was established as a permanent Working Group of the Coordination Group for Meteorological Satellites (CGMS) on 20-22 June 2001 in Ft. Collins, CO. The IPWG is co-sponsored by CGMS and the World Meteorological Organization (WMO) and focuses the scientific community on operational and research satellite based quantitative precipitation measurement issues and challenges.



Associate Editor of the Journal of Hydrology and Frontiers in Climate–Climate Services. Since 2010, she has published 55 peer-reviewed scientific articles, 4 book chapters, 3 scientific reports, and co-edited a book on Extreme Hydroclimatic Events and Multivariate Hazards in a Changing Climate (Elsevier, 2019).

Philippe Chambon, Ph.D., Co-chair of IPWG, Researcher, CNRM, Université de Toulouse, Météo-France and CNRS



Dr. Philippe Chambon is a researcher in the “Observation” team in the NWP research division (GMAP) of the CNRM (Météo-France/CNRS). He received his Ph.D. degree in 2011 during which he contributed to designing the precipitation estimation Level-4 product for the joined ISRO-CNES satellite mission Megha-Tropiques. He was with NASA Goddard Space Flight Center within the science team of the GPM satellite mission as a postdoctoral fellow in 2012. Since 2013, he is working at Météo-France on data assimilation of satellite observations and his main research interest is on the use of microwave satellite observations for improving predictions of components of the water cycle through several space programs. Philippe Chambon is co-Chair of the International Precipitation Working Group (IPWG) since November 2018.

From WMO

Kenneth Holmlund, Ph.D., Head of Space Systems and Utilization Division, Department of Infrastructure, WMO Secretariat



Dr. Kenneth Holmlund is currently the Head of the Space Systems and Utilization at WMO, leading the WMO efforts on space-based observations and related capacity building, space weather activities and coordinating frequency issues. Before he joined WMO, he had previously worked in EUMETSAT in the following positions: Chief Scientist supporting the EUMETSAT Management Board on scientific matters with potential strategic implications, Head of Remote Sensing and Products Division, and Head of Meteorological Operations Division. Kenneth has more than 30 years of experience in remote sensing at EUMETSAT, European Space Agency and Finnish Meteorological Institute. Kenneth received his Ph.D. from the University of Helsinki.

Heikki Pohjola, Scientific Officer, WMO Space Program, Department of Infrastructure, WMO Secretariat



Mr. Heikki Pohjola is working as Scientific Officer at WMO Space Programme. Before his career at WMO he worked at EUMETSAT as a Remote Sensing Scientist for Meteosat Third Generation (MTG) satellite mission and especially on its Lightning Imager (LI) instrument development. Before EUMETSAT he worked for a decade in the field of weather radars and lightning detection systems in private sector at Vaisala. He holds MSc in Meteorology from the University of Helsinki, where he started his career working at Finnish Meteorological Institute as a research scientist in the field of remote sensing.