ver. 10 March 2025

PrePEP 2025

Precipitation Processes - Estimation and Prediction

Oral program

Day 3	**Wednesday 19 March 2025**		
Keynote	8:45-9:15	**How ML is transforming our approach to seamless weather forecasting** Keynote speaker: Daniele Nerini (MeteoSwiss) 1) Daniele Nerini (MeteoSwiss) and MeteoSwiss colleagues	
Session 4 A	**Seamless Prediction: Data assimilation integrating nowcasting and new observations** Chair 1: Ulrich Blahak, Chair 2: Nora Linn Strotjohann		
			Abstract ID
1	9:15-9:30	**Assimilation of Lightning and Reflectivity Texture Fraction in ICON-LAM** 1) Ulrich Blahak (Deutscher Wetterdienst) 2) Lisa Neef* (Deutscher Wetterdienst) 3) Klaus Stephan (Deutscher Wetterdienst) 4) Christian Welzbacher (Deutscher Wetterdienst)	23
2	9:30-9:45	**Assimilation of 3D polarimetric microphysical retrievals using the operational ICON model framework of DWD** 1) Armin Blanke* (Institute of Geosciences, Meteorology Section, University of Bonn) 2) Roland Potthast (Deutscher Wetterdienst) 3) Silke Trömel (Institute of Geosciences, Meteorology Section, University of Bonn)	48
3	9:45-10:00	**Commercial Microwave Link (CML) Data Assimilation with the LETKF** 1) Klaus Vobig* (Deutscher Wetterdienst) 2) Christian Chwala (KIT (IMK-IFU)) 3) Julius Polz (KIT (IMK-IFU)) 4) Roland Potthast (Deutscher Wetterdienst)	72

	4	10:00-10:15	**Evaluate the Impact of Dual-Polarization Radar Data Assimilation Using Observation Operators** 1) Chin-Chuan Chang* (Department of Atmospheric Sciences, National Central University) 2) Kao-Shen Chung (Department of Atmospheric Sciences, National Central University) 3) Chen-Hao Lan (National Center for Atmospheric Research, Colorado) 4) Bing-Xue Zhuang (Department of Atmospheric and Oceanic Sciences, McGill University)	121
	5	10:15-10:30	**Latest Result of Including ZDR Column for Enhanced Radar Data Assimilation at German weather Service (DWD)** 1) Ulrich Blahak (Deutscher Wetterdienst) 2) Kobra Khosravian* (Deutscher Wetterdienst) 3) Jana Mendrok (Deutscher Wetterdienst) 4) Klaus Stephan (Deutscher Wetterdienst) 5) Alberto de Lozar (Deutscher Wetterdienst)	127
Coffee break		10:30-11:00		
Session 4 A		**Seamless Prediction: Data assimilation integrating nowcasting and new observations** Chair 1: Axel Seifert, Chair 2: Armin Blanke		
	6	11:00-11:15	**High resolution data assimilation in the GLORI Project** 1) Virginia Poli* (Agenzia ItaliaMeteo / Arpae Emilia-Romagna) 2) Pier Paolo Alberoni (Arpae Emilia-Romagna) 3) Davide Cesari (Arpae Emilia-Romagna) 4) Alfonso Ferrone (Arpae Emilia-Romagna) 5) Thomas Gastaldo (Agenzia ItaliaMeteo / Arpae Emilia-Romagna) 6) Chiara Marsigli (Agenzia ItaliaMeteo / Arpae Emilia-Romagna) 7) Enrico Minguzzi (Arpae Emilia-Romagna)	128
Session 4 B		**Seamless Prediction: Blending and probabilistic techniques based on nowcasting and NWP ensembles**		
	1	11:15-11:30	**Current status of SINFONY – The combination of nowcasting and numerical weather prediction for forecasting convective events at DWD** 1) Ulrich Blahak* (Deutscher Wetterdienst) 2) Researcher-team of the project SINFONY (Deutscher Wetterdienst)	118

	2	11:30-11:45	**Project IMA: seamless predictions at the Royal Meteorological Institute of Belgium** 1) Lesley De Cruz* (Royal Meteorological Institute of Belgium - Vrije Universiteit Brussel) 2) Michiel Van Ginderachter (Royal Meteorological Institute of Belgium) 3) Maarten Reyniers (Royal Meteorological Institute of Belgium) 4) Alex Deckmyn (Royal Meteorological Institute of Belgium) 5) Simon De Kock (Vrije Universiteit Brussel - Royal Meteorological Institute of Belgium) 6) Idir Dehmous (Royal Meteorological Institute of Belgium) 7) Wout Dewettinck (Royal Meteorological Institute of Belgium) 8) Felix Erdmann (Royal Meteorological Institute of Belgium) 9) Ruben Imhoff (Deltares) 10) Arthur Moraux (Royal Meteorological Institute of Belgium) 11) Ricardo Reinoso-Rondinel (KU Leuven-KMI) 12) Mats Veldhuizen (Koninklijk Nederlands Meteorologisch Instituut) 13) Joseph James Casey (Vrije Universiteit Brussel) 14) Loic Faleu Kemajou (Royal Meteorological Institute of Belgium) 15) Anshul Kumar (Royal Meteorological Institute of Belgium) 16) Viktor Van Nieuwenhuize (Royal Meteorological Institute of Belgium)	122
	3	11:45-12:00	**Seamless Combination of Object-Based Probabilistic Nowcasting and NWP Ensemble of Convective Cells From KONRAD3D** 1) Lukas Josipovic* (Deutscher Wetterdienst) 2) Nora-Linn Strotjohann (Deutscher Wetterdienst) 3) Gregor Pante (Deutscher Wetterdienst) 4) Ulrich Blahak (Deutscher Wetterdienst)	19
	4	12:00-12:15	**Seamless Integrated Rainfall Forecasts using Nowcasting and NWP-Ensembles** 1) Christian Berndt* (Deutscher Wetterdienst) 2) Ulrich Blahak (Deutscher Wetterdienst) 3) Martin Rempel (Deutscher Wetterdienst) 4) Markus Schultze (Deutscher Wetterdienst)	44
Excursion		12:15-18:00	**Excursion to the Ahr valley with guided hydrological tour, departure at 12:15 CET**	