Day 5		Friday, September 13, 2024			
Keynote		Aula Magna 8:45 9:15	**Keynote: REFLECTIONS ON ATTENUATION: WHERE ARE WE 70 YEARS AFTER HITSCHFELD-BORDAN?** **Keynote Speaker: HIDDE LEIJNSE** *1) Hidde Leijnse*, 2) Iwan Holleman, 3) Remko Uijlenhoet* 1) Royal Netherlands Meteorological Institute (KNMI) , 2) Radboud Universiteit Nijmegen, the Netherlands , 3) Delft University of Technology, the Netherlands	*Abstract ID: 297*
Session 1		Aula Magna	**Weather radar and climate I** **Chairs: Scott Collis and Virginia Poli**	
	1	9:20 9:35	**A CLIMATOLOGY OF HEAVY CONVECTIVE PRECIPITATION OVER EUROPE** *1) Kelly Lombardo*, 2) Miranda Bitting* 1) The Pennsylvania State University, 2) National Oceanic and Atmospheric Administration	*Abstract ID: 78*
	2	9:35 9:50	**MAPPING RAIN: NAVIGATING THE MAZE OF PRECIPITATION DATASETS ACROSS EUROPE** *1) Julian Alberto Giles*, 2) Suad Hammoudeh, 3) Klaus Goergen, 4) Silke Trömel* 1) Institute of Geosciences, Meteorology Section, University of Bonn, Germany, 2) Institute of Bio- and Geosciences (IBG-3, Agrosphere), Forschungszentrum Jülich, Jülich, Germany - Centre for High-Performance Scientific Computing in Terrestrial Systems, Geoverbund ABC/J, Jülich, Germany - , 3) Institute of Bio- and Geosciences (IBG-3, Agrosphere), Forschungszentrum Jülich, Jülich, Germany - Centre for High-Performance Scientific Computing in Terrestrial Systems, Geoverbund ABC/J, Jülich, Germany - , 4) Institute of Geosciences, Meteorology Section, University of Bonn, Germany	*Abstract ID: 236*
	3	9:50 10:05	**PROPERTIES OF CONVECTIVE AND STRATIFORM PRECIPITATION OVER THE US** *1) Ulrike Romatschke, 2) Mike Dixon** 1) NSF National Center for Atmospheric Research, 2) NSF National Center for Atmospheric Research	*Abstract ID: 189* -
	4	10:05 10:20	**A CLIMATOLOGICAL STUDY ON THE TWO TYPES OF BOW ECHOES OVER SOUTH CHINA** *1) Kun Zhao, 2) Ang Zhou** 1) Nanjing University, 2) Nanjing University	*Abstract ID: 245*
	5	10:20 10:35	**EXPLORING PRECIPITATION INTENSITY-DURATION-AREA-FREQUENCY (IDAF) PATTERNS USING WEATHER RADAR DATA** *1) Talia Rosin*, 2) Francesco Marra, 3) Efrat Morin* 1) The Hebrew University of Jerusalem, 2) University of Padova, 3) The Hebrew University of Jerusalem	*Abstract ID: 5*
	6	10:35 10:50	**TORNADIC SUPERCELL STRUCTURES, BEST TORNADO STUDY, EXTENDED TORNADO CLIMATOLOGIES** *1) Joshua Wurman*, 2) Karen Kosiba* 1) Flexible Array of Radars and Mesonets (FARM) - University of Illinois - , 2) Flexible Array of Radars and Mesonets (FARM) - University of Illinois -	*Abstract ID: 272*
Session 2		Aula Archeologia	**Clouds and precipitation physics VI Multi frequency** **Chairs: Heike Kalesse-Los and Dmitri Moisseev**	
	1	9:20 9:35	**MULTI-WAVELENGTH RADAR RETRIEVALS IN WINTER STORMS** *1) Stephen Nesbitt*, 2) Kaitlyn Jesmonth, 3) Kaylee Heimes, 4) Randy Chase, 5) Robert Rauber* 1) University of Illinois Urbana-Champaign, 2) University of Illinois Urbana-Champaign, 3) University of Illinois Urbana-Champaign, 4) Colorado State University, 5) University of Illinois Urbana-Champaign	*Abstract ID: 337*
	2	9:35 9:50	**NOVEL MEASUREMENTS OF G-BAND DOPPLER SPECTRA IN ICE CLOUDS AND PRECIPITATION** *1) Karina McCusker, 2) Chris Westbrook*, 3) Alessandro Battaglia, 4) Kamil Mroz, 5) Ben Courtier, 6) Peter G. Huggard, 7) Hui Wang, 8) Christopher J. Walden* 1) University of Reading, 2) University of Reading, 3) Politecnico of Turin - University of Leicester - National Centre for Earth Observation, Leicester, 4) University of Leicester - National Centre for Earth Observation, Leicester - , 5) University of Leicester, 6) RAL Space, STFC Rutherford Appleton Laboratory, 7) RAL Space, STFC Rutherford Appleton Laboratory, 8) RAL Space, STFC Rutherford Appleton Laboratory - National Centre for Atmospheric Science, Leeds -	*Abstract ID: 200*
	3	9:50 10:05	**THE ROLE OF METEOROLOGICAL CONTROLS ON ARCTIC CLOUD AND PRECIPITATION PROPERTIES FROM RADAR-BASED RETRIEVALS: RESULTS FROM MOSAIC AND SHEBA** *1) Andrew Dzambo*, 2) Greg McFarquhar, 3) Matthew Shupe* 1) Cooperative Institute for Severe and High Impact Weather and Research Operations - University of Oklahoma - Norman - , 2) Cooperative Institute for Severe and High Impact Weather and Research Operations - School of Meteorology, University of Oklahoma - Norman - , 3) Cooperative Institute for Research in Environmental Sciences, University of Colorado - Boulder	*Abstract ID: 355*
	4	10:05 10:20	**GEOGRAPHICAL FINGERPRINTS ON SNOW GROWTH PROCESSES: A SURVEY FROM TROPICS 2 TO ANTARCTICA USING TRIPLE-FREQUENCY RADAR OBSERVATIONS** *1) Haoran Li*, 2) Qinghui Li, 3) Stefan Kneifel, 4) Leonie v. Terzi, 5) Zheng Ruan, 6) Liping Liu, 7) Yun Zhang, 8) Chunsheng Zhang, 9) Xuejin Sun* 1) Chinese Academy of Meteorological Sciences, 2) National University of Defense Technology, 3) University of Munich, 4) University of Munich, 5) Chinese Academy of Meteorological Sciences, 6) Chinese Academy of Meteorological Sciences, 7) National University of Defense Technology, 8) Shenzhen Observatory, 9) National University of Defense Technology	*Abstract ID: 2*
	5	10:20 10:35	**COMPARISON OF VERTICALLY POINTING KA-BAND AND C-BAND RADAR OBSERVATIONS FOR THE CHARACTERIZATION OF RIMING EVENTS** *1) Paul Ockenfuß*, 2) Mathias Gergely, 3) Stefan Kneifel, 4) Michael Frech* 1) Meteorologisches Institut, Ludwig-Maximilians-Universität München, Germany, 2) German Meteorological Service (Deutscher Wetterdienst, DWD), Observatorium Hohenpeißenberg, Hohenpeißenberg, Germany, 3) Meteorologisches Institut, Ludwig-Maximilians-Universität München, Germany, 4) German Meteorological Service (Deutscher Wetterdienst, DWD), Observatorium Hohenpeißenberg, Hohenpeißenberg, Germany	*Abstract ID: 119*

	6	10:35	10:50	**ANALYSIS OF KA-W RADAR RETRIEVALS OF THE DSD FOR THE PARAMETERIZATION OF RAINDROP COLLECTION AND BREAKUP PROCESSES IN BULK MODELS** *1) Laurence Niquet, 2) Frederic Tridon*, 3) Pierre Grzegorczyk, 4) Antoine Causse, 5) Baptiste Bordet, 6) Wolfram Wobrock, 7) Celine Planche* 1) (1) Laboratoire de Météorologie Physique, Université Clermont Auvergne, INSU-CNRS UMR 6016, Clermont-Ferrand, France, 2) (2) DIATI, Politecnico di Torino, Turin, Italy, 3) (1) Laboratoire de Météorologie Physique, Université Clermont Auvergne, INSU-CNRS UMR 6016, Clermont-Ferrand, France, 4) (1) Laboratoire de Météorologie Physique, Université Clermont Auvergne, INSU-CNRS UMR 6016, Clermont-Ferrand, France, 5) (3) Laboratoire Interdisciplinaire de physique, Université Grenoble Alpes, INSU-CNRS UMR 5588, Grenoble, France, 6) (1) Laboratoire de Météorologie Physique, Université Clermont Auvergne, INSU-CNRS UMR 6016, Clermont-Ferrand, France, 7) (1) Laboratoire de Météorologie Physique, Université Clermont Auvergne, INSU-CNRS UMR 6016, Clermont-Ferrand, France	*Abstract ID: 347*
Session 3	**Aula Magna**			**Radar hydrometeorological applications VII QPE** **Chairs: Raquel Evaristo and Nicoletta Roberto**	
	1	11:20	11:35	**ASSESSMENT OF SEVERAL MACHINE LEARNING APPROACHES FOR OPERATIONAL RADAR QPE** *1) Gianfranco Vulpiani*, 2) Matteo Guidi, 3) Francesco Bosso, 4) Emilio Guerriero* 1) Department of civil protection, 2) Leonardo S.p.a., 3) Leonardo S.p.a., 4) Leonardo S.p.a.	*Abstract ID: 303*
	2	11:35	11:50	**SPATIO-TEMPORALLY CORRELATED PROBABILISTIC QUANTITATIVE PRECIPITATION ESTIMATION (QPE) BASED ON A RANDOM FOREST APPROACH, ENSEMBLE COPULA COUPLING AND OPERATIONAL RADAR DATA** *1) Rebecca Gugerli, 2) Loris Foresti, 3) Daniel Wolfensberger*, 4) Francesco Zanetta, 5) Daniele Nerini, 6) Marco Gabella, 7) Ioannis V. Sideris, 8) Urs Germann, 9) Alexis Berne* 1) Environmental Remote Sensing Laboratory, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland - Radar, Satellite and Nowcasting Division, Federal Office of Meteorology and Climatology MeteoSwiss, Switzerland - , 2) Radar, Satellite and Nowcasting Division, Federal Office of Meteorology and Climatology MeteoSwiss, Switzerland, 3) Radar, Satellite and Nowcasting Division, Federal Office of Meteorology and Climatology MeteoSwiss, Switzerland, 4) Institute for Atmospheric and Climate Science, Eidgenössische Technische Hochschule Zürich (ETHZ), Switzerland - Radar, Satellite and Nowcasting Division, Federal Office of Meteorology and Climatology MeteoSwiss, Switzerland - , 5) Radar, Satellite and Nowcasting Division, Federal Office of Meteorology and Climatology MeteoSwiss, Switzerland, 6) Radar, Satellite and Nowcasting Division, Federal Office of Meteorology and Climatology MeteoSwiss, Switzerland, 7) Radar, Satellite and Nowcasting Division, Federal Office of Meteorology and Climatology MeteoSwiss, Switzerland, 8) Radar, Satellite and Nowcasting Division, Federal Office of Meteorology and Climatology MeteoSwiss, Switzerland, 9) Environmental Remote Sensing Laboratory, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland	*Abstract ID: 199*
	3	11:50	12:05	**MACHINE LEARNING APPLICATION ON TUSCANY FOR RADAR-BASED QPE** *1) Andrea Antonini*, 2) Samantha Melani, 3) Luca Fibbi, 4) Alessandro Mazza, 5) Alberto Ortolani* 1) LaMMA Consortium, 2) LaMMA Consortium - CNR-IBE - , 3) LaMMA Consortium - CNR-IBE - , 4) LaMMA Consortium - CNR-IBE - , 5) LaMMA Consortium - CNR-IBE -	*Abstract ID: 357*
	4	12:05	12:20	**TROPICAL RAINFALL NOWCASTING WITH COMMERCIAL MICROWAVE LINKS** *1) Bas Walraven*, 2) Aart Overeem, 3) Ruben Imhoff, 4) Rolf Hut, 5) Luuk van der Valk, 6) Miriam Coenders, 7) Remko Uijlenhoet* 1) Department of Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands, 2) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute (KNMI), Utrechtseweg 297, 3731 GA De Bilt, The Netherlands - Department of Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands - , 3) Deltares, Delft, the Netherlands, 4) Department of Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands, 5) Department of Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands, 6) Department of Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands, 7) Department of Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands	*Abstract ID: 177*
	5	12:20	12:35	**COMPARING HYDROMETEOR CLASSIFICATION RETRIEVED FROM DUAL-POLARIZATION C-BAND DOPPLER WEATHER RADARS TO DUAL-POLARIZATION DOPPLER PROFILER OBSERVATIONS** *1) Linda Bogerd*, 2) Hidde Leijnse, 3) Aart Overeem, 4) Remko Uijlenhoet, 5) Sibbo van der Veen* 1) Wageningen University and Research - Royal Netherlands Meteorological Institute - , 2) Royal Netherlands Meteorological Institute, 3) Royal Netherlands Meteorological Institute, 4) Delft University of Technology, 5) Royal Netherlands Meteorological Institute	*Abstract ID: 8*
Session 4	**Aula Archeologia**			**Weather radar and climate II** **Chair: Miguel Angel Rico-Ramirez**	
	1	11:20	11:35	**A DETAILED CALIBRATION STUDY AND 10 YEAR CLIMATOLOGY OF QUASI-VERTICAL PROFILES IN STRATIFORM RAIN** *1) Tobias Scharbach*, 2) Silke Trömel* 1) Institute for Geosciences, Department of Meteorology, University of Bonn, Bonn, Germany, 2) Institute for Geosciences, Department of Meteorology, University of Bonn, Bonn, Germany - Laboratory for Clouds and Precipitation Exploration, Geoverbund ABC/J, Bonn, Germany -	*Abstract ID: 124*
	2	11:35	11:50	**MERGING WITH CROWDSOURCED RAIN GAUGE DATA IMPROVES OPERA RADAR PRECIPITATION ACCUMULATIONS** *1) Aart Overeem*, 2) Hidde Leijnse, 3) Gerard van der Schrier, 4) Else van den Besselaar, 5) Irene Garcia-Marti, 6) Lotte Wilhelmina de Vos* 1) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute, 2) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute, 3) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute, 4) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute, 5) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute, 6) Observation Operations, Royal Netherlands Meteorological Institute	*Abstract ID: 107*
	3	11:50	12:05	**LATEST RESULTS OF INCLUDING ZDR COLUMN FOR ENHANCED RADAR DATA ASSIMILATION AT GERMAN WEATHER SERVICE (DWD)** *1) Kobra Khosravian*, 2) Klaus Stephan, 3) Alberto De Lozar, 4) Jana Mendrok, 5) Ulrich Blahak* 1) German Weather Service (DWD), 2) German Weather Service (DWD), 3) German Weather Service (DWD), 4) German Weather Service (DWD), 5) German Weather Service (DWD)	*Abstract ID: 182*

	4	12:05	12:20	**SUB-DAILY EXTREME PRECIPITATION TRENDS: NEW INSIGHTS FROM COMBINING RADAR DATA AND CONVECTION PERMITTING CLIMATE SIMULATIONS** *1) Alrun Jasper-Tönnies*, 2) Jaya Kelvin, 3) Thomas Einfalt, 4) Christian Huebner, 5) Manfred Schütze* 1) hydro & meteo GmbH, 2) hydro & meteo GmbH, 3) hydro & meteo GmbH, 4) Institut für Automation und Kommunikation e. V., 5) Institut für Automation und Kommunikation e. V.	*Abstract ID: 332*
	5	12:20	12:35	**IMPROVEMENTS IN THE SNOWFALL SAMPLING DUE TO THE WIVERN CONICALLY SCANNING RADAR** *1) Filippo Emilio Scarsi*, 2) Alessandro Battaglia, 3) Maximilian Maahn* 1) Department of Environment, Land and Infrastructure Engineering, Polytechnic of Turin, Turin, Italy, 2) Department of Environment, Land and Infrastructure Engineering, Polytechnic of Turin, Turin, Italy, 3) Leipzig Institute for Meteorology (LIM), Leipzig University, Leipzig, Germany	*Abstract ID: 114*
Aula Magna		12:35	13:00	**Closing Cerimony** Reflections on ERAD 2024, Student Awards, ERAD 2026	