

Day	4	Tuesday, September 12, 2024, 11:20-13:05; Museo dell'arte classica
Poster Session	3	Radar hydrometeorological applications
	1	CONVECTIVE GUST ALERTS GENERATED BY THE RADAR-BASED “SEVERE WEATHER INDEX” IN THE INCA-BE NOWCASTING SYSTEM 1) Maarten Reyniers, 2) David Dehennauw, 3) Thomas Vanhamel 1) Royal Meteorological Institute of Belgium , 2) Royal Meteorological Institute of Belgium , 3) Royal Meteorological Institute of Belgium
	2	COMPARISON OF HOMOGENEOUS AND VARIABLE ELEVATION SCANS ON THE UNCERTAINTY OF THE QUANTITATIVE PRECIPITATION ESTIMATION 1) Markus Jessen, 2) Bruno Castro, 3) Thomas Einfalt 1) hydro & meteo GmbH , 2) hydro & meteo GmbH , 3) hydro & meteo GmbH
	3	AUTOMATIC TRACKING OF TROPICAL CYCLONE CENTER USING OPTICAL FLOW TECHNIQUE COMBINED WITH THE KALMAN FILTER BASED ON WEATHER RADAR IMAGES 1) Sun-Jin Mo, 2) Ji-Young Gu, 3) Bo-Young Ye, 4) Seungwoo Lee 1) Weather Radar Center,Korea Meteorological Administration,South Korea , 2) Korea Meteorological Administration , 3) Weather Radar Center,Korea Meteorological Administration,South Korea , 4) Weather Radar Center,Korea Meteorological Administration,South Korea
	4	DETECTION OF CIRCULATION CENTROID IN MID-LATITUDE CYCLONE USING HIGH-RESOLUTION THREE-DIMENSIONAL WIND FIELDS DERIVED FROM NATIONWIDE WEATHER RADAR NETWORK 1) Soyeon Park, 2) Kwang-Ho Kim, 3) Sung-Hwa Jung 1) Weather Radar Center, Korea Meteorological Administration, South Korea , 2) Weather Radar Center, Korea Meteorological Administration, South Korea , 3) Weather Radar Center, Korea Meteorological Administration, South Korea
	5	ASSESSMENT OF VERTICAL PROFILE CORRECTION FOR QUANTITATIVE PRECIPITATION ESTIMATION USING OPERATIONAL S-BAND POLARIMETRIC RADAR OVER COMPLEX OROGRAPHY IN NORTHERN TAIWAN 1) Jui Le Loh, 2) Wei Yu Chang, 3) Chien Yu Liu 1) Department of Atmospheric Sciences, National Central University, Taiwan , 2) Department of Atmospheric Sciences, National Central University, Taiwan , 3) Department of Atmospheric Sciences, National Central University, Taiwan
	6	A HYDROMETEOR CLASSIFICATION METHOD FOR DUAL POLARIZATION WEATHER RADAR BASED ON GAUSSIAN MIXTURE MODEL USING BAYESIAN INFERENCE 1) Takahisa Wada, 2) Yuta Ozawa, 3) Satoshi Kida, 4) Masakazu Wada, 5) Yasunori Nakagawa, 6) Osamu Yamanaka 1) Infrastructure Systems Research and Development Center,Toshiba Infrastructure Systems & Solutions Corporation , 2) Infrastructure Systems Research and Development Center,Toshiba Infrastructure Systems & Solutions Corporation , 3) Toshiba Corporation , 4) Toshiba Corporation , 5) Toshiba Digital Solutions Corporation , 6) Infrastructure Systems Research and Development Center,Toshiba Infrastructure Systems & Solutions Corporation
	7	EXPLORING HEAVY RAINFALL EVENTS IN THE TROPICAL ANDES USING A SINGLE POLARIZATION X-BAND RADAR 1) Diego Urdiales-Flores, 2) Nadav Peleg 1) Institute of Earth Surface Dynamics, University of Lausanne, Lausanne, Switzerland , 2) Institute of Earth Surface Dynamics, University of Lausanne, Lausanne, Switzerland
	8	INTEGRATING RADAR-INTERPRETED RAINFALL TO ESTONIAN OPERATIONAL FIRE WEATHER INDEX 1) Tanel Voormansik, 2) Jorma Rahu, 3) Ahto Mets, 4) Aleksei Vaštšenko 1) Estonian Environment Agency - University of Tartu - , 2) Estonian Environment Agency - University of Tartu - , 3) Estonian Environment Agency , 4) Estonian Environment Agency
	9	RAINFALL RATE ESTIMATION IN NON-UNIFORM BLOCKAGE REGIONS: ADDRESSING CHALLENGES WITH THE SPECIFIC ATTENUATION METHOD 1) Lin Tang, 2) Jian Zhang, 3) Yu-Shuang Tang 1) Cooperative Institute for Severe and High-Impact Weather Research and Operation (CIWRO), University of Oklahoma, USA - NOAA/OAR/National Severe Storms Laboratory, USA -, 2) NOAA/OAR/National Severe Storms Laboratory, USA , 3) Central Weather Administration, Taiwan
	10	QUANTITATIVE PRECIPITATION ESTIMATION IN THE FRAMEWORK OF THE PROWESS PROJECT 1) Jordi Figueras i Ventura, 2) Albert Oude Nijhuis, 3) Tobias Otto, 4) Yann Dufournet 1) Independent Radar Scientist , 2) SkyEcho B.V. , 3) SkyEcho B.V. , 4) SkyEcho B.V.

11	EVALUATION OF HOURLY PRECIPITATION SIMULATIONS FROM A NEW HIGH-RESOLUTION REGIONAL ATMOSPHERIC REANALYSIS ALADIN WITH GAUGE-ADJUSTED RADAR PRECIPITATION MEASUREMENTS 1) Vojtech Bliznak, 2) Petr Zacharov 1) Institute of Atmospheric Physics CAS , 2) Institute of Atmospheric Physics CAS
12	PERFORMANCE OF A NEW RAIN RATE ESTIMATION METHOD IN AREAS OF WIND FARMS 1) Pengfei Zhang, 2) Dusan Zrnic, 3) Alexander Ryzhkov 1) CIWRO, University of Oklahoma - NSSL, NOAA -, 2) NSSL, NOAA , 3) CIWRO, University of Oklahoma - NSSL, NOAA -
13	DEVELOPMENT OF A HYBRID RAINFALL DATASET USING WEATHER RADAR DATA AND GROUND RAIN GAUGES FROM THE THAILAND METEOROLOGICAL DEPARTMENT 1) Kota Tsuzuki, 2) Taichi Tebakari 1) Civil, Human and Environmental Science and Engineering Course, Graduate School of Science and Engineering, Chuo University, Japan , 2) Department of Civil and Environmental Engineering, Chuo University, Japan
14	RAINCELL PROJECT: COMMERCIAL MICROWAVE LINKS TO ESTIMATE RAINFALL AT MÉTÉO-FRANCE 1) Dominique Faure, 2) Marielle Gosset, 3) Pauline Mialhe, 4) Pierre Lepetit, 5) Laurent Brunier, 6) Olivier Laurantin, 7) Ludovic Bouilloud 1) Météo-France, 42 avenue Gaspard Coriolis, 31057 Toulouse, FRANCE , 2) IRD/GET, OMP, 14 av Ed Belin, 31500 Toulouse, France , 3) Météo-France, 42 avenue Gaspard Coriolis, 31057 Toulouse, FRANCE , 4) Météo-France, 42 avenue Gaspard Coriolis, 31057 Toulouse, FRANCE , 5) Météo-France, 42 avenue Gaspard Coriolis, 31057 Toulouse, FRANCE , 6) Météo-France, 42 avenue Gaspard Coriolis, 31057 Toulouse, FRANCE , 7) Météo-France, 42 avenue Gaspard Coriolis, 31057 Toulouse, FRANCE
15	EVALUATION OF OPERATIONAL USABILITY OF CURRENT RADAR PRODUCTS IN ESTIMATION OF PRECIPITATION TYPE 1) Hana Kyznarova, 2) Petr Novak 1) Czech Hydrometeorological Institute , 2) Czech Hydrometeorological Institute
16	IMPROVEMENTS OF CZECH COMBINED RADAR-RAINGAUGE QPE AIMED AT MEETING HYDROLOGISTS NEEDS 1) Petr Novak, 2) Hana Kyznarova 1) Czech Hydrometeorological Institute , 2) Czech Hydrometeorological Institute
17	USE OF POLARIMETRIC RADAR DATA FOR BETTER NOWCASTING OF CONVECTIVE STORM SEVERITY 1) David Rýva 1) Czech Hydrometeorological Institute, Radar Department
18	EVALUATION AND IMPROVEMENTS OF A NATIONWIDE RADAR-BASED PRECIPITATION NOWCASTING 1) Mathias Emond, 2) Silke Trömel, 3) Ricardo Reinoso-Rondinel 1) Institute of Geosciences, department of Meteorology, University of Bonn, Bonn, Germany , 2) Institute of Geosciences, department of Meteorology, University of Bonn, Bonn, Germany , 3) Civil Engineering, Hydraulics & Geotechnics, KU Leuven, Leuven, Belgium - Royal Meteorological Institute of Belgium, Brussels, Belgium -
19	PYRADMAN: A FLEXIBLE PYTHON FRAMEWORK FOR RADAR ADJUSTMENT USING CML AND RAIN GAUGE DATA 1) Malte Wenzel, 2) Christian Vogel, 3) Maximilian Graf, 4) Christian Chwala, 5) Tanja Winterrath 1) Deutscher Wetterdienst - Hydrometeorologie , 2) Deutscher Wetterdienst - Wettermvorhersage , 3) University of Augsburg - Institute of Geography , 4) Karlsruhe Institute of Technology - Institute of Meteorology and Climate Research , 5) Deutscher Wetterdienst - Hydrometeorologie
20	THE NEPTUNE EUROPEAN PROJECT FOR NOWCASTING AND IMPACT-BASED PREDICTIONS OF INUNDATIONS INMEDITERRANEAN CATCHMENTS: THE ALEX STORM CASE STUDY FOR THE TRANSBORDER CATCHMENT OF LA ROYA 1) Lorenzo Alfieri, 2) Andrea Cavallo, 3) Pierre Javelle, 4) Erwan Le Bouar, 5) Rocco Masi, 6) Federica Martina, 7) Maria Laura Poletti, 8) Francesco Silvestro, 9) Emmanuel Moreau, 10) Julie Demargne 1) CIMA , 2) ARPAL , 3) INRAE PACA , 4) NOVIMET , 5) CIMA , 6) ARPAL , 7) CIMA , 8) CIMA , 9) NOVIMET , 10) Hydris Hydrologie
21	PREDICTING CONVECTIVE CELLS BY COMBINING NOWCASTING AND NUMERICAL WEATHER PREDICTION MODELS WITH KONRAD3D-SINFONY 1) Nora Linn Strotjohann, 2) Andreas Brechtel, 3) Lukas Josipovic, 4) Gregor Pante, 5) Ulrich Blahak 1) Deutscher Wetterdienst , 2) Deutscher Wetterdienst , 3) Deutscher Wetterdienst , 4) Deutscher Wetterdienst , 5) Deutscher Wetterdienst

22	THE EXCEPTIONAL METEOROLOGICAL EVENT ON THE GULF OF GENOA FROM 27-31 OCTOBER 2018: THE SATELLITE DATA PROCESSING FOR THE MARINE WIND FIELD EXTRAPOLATION 1) Claudio Monteverde, 2) Cosimo Cagnazzo 1) A.P.S. Osservatorio Meteorologico, Agrario, Geologico Prof. Don Gian Carlo Raffaelli dal 1883 - A.P.S. Osservatorio Meteorologico, Agrario, Geologico Prof. Don Gian Carlo Raffaelli dal 1883 - A.P.S. Osservatorio Meteorologico, Agrario, Geologico Prof. Don Gian Carlo Raffaelli dal 1883, 2) A.P.S. Osservatorio Meteorologico, Agrario, Geologico Prof. Don Gian Carlo Raffaelli dal 1883 - A.P.S. Osservatorio Meteorologico, Agrario, Geologico Prof. Don Gian Carlo Raffaelli dal 1883 - A.P.S. Osservatorio Meteorologico, Agrario, Geologico Prof. Don Gian Carlo Raffaelli dal 1883
23	INTEGRATING NEW KONRAD3D CELL ATTRIBUTES INTO THE NOWCASTING GUIDANCE SYSTEM NOWCASTMIX AT DWD 1) Michael Debertshäuser, 2) Paul James, 3) Manuel Werner, 4) Gergely Böloni 1) German Weather Service , 2) German Weather Service , 3) German Weather Service , 4) German Weather Service
24	ESTIMATION OF DESIGN PRECIPITATION USING WEATHER RADAR IN GERMANY: A COMPARISON OF STATISTICAL METHODS 1) Katharina Lengfeld, 2) Thomas Junghänel, 3) Jennifer Ostermöller, 4) Angelika Palarz, 5) Francesco Marra 1) Deutscher Wetterdienst , 2) Deutscher Wetterdienst , 3) Deutscher Wetterdienst , 4) Deutscher Wetterdienst , 5) Department of Geosciences, University of Padova
25	A STRAIGHTFORWARD ATMOSPHERIC-RADAR SIMULATOR FOR VERTICAL-AIR-MOTION ANALYSIS FROM FREQUENCY-MODULATED CONTINUOUS-WAVE-RADAR RAIN MEASUREMENTS 1) Andreu Salcedo-Bosch, 2) Francesc Rocadenbosch, 3) Alicia Garcia Garcia, 4) Simone Lolli, 5) Robin Tanamachi, 6) Stephen Frasier 1) Consiglio Nazionale delle Ricerche - Istituto di Metodologie per l'Analisi Ambientale, C. da S. Loja, Tito Scalo, Potenza, 85050, Italy , 2) CommSensLab-UPC, Department of Signal Theory and Communications, Universitat Politècnica de Catalunya (UPC), E-08034, Barcelona, Spain - Institute of Space Studies of Catalonia, IEEC, E-08034, Barcelona, Spain -, 3) CommSensLab-UPC, Department of Signal Theory and Communications, Universitat Politècnica de Catalunya (UPC), E-08034, Barcelona, Spain , 4) Consiglio Nazionale delle Ricerche, Istituto di Metodologie per l'Analisi Ambientale, C. da S. Loja, Tito Scalo, Potenza, 85050, Italy , 5) Department of Earth, Atmospheric and Planetary Sciences (EAPS), Purdue University, West Lafayette, Indiana , 6) Microwave Remote Sensing Laboratory (MIRSL), University of Massachusetts, 151 Holdsworth Way, Amherst, MA 01003-9284
26	ASSESSMENT OF DETERMINISTIC AND ENSEMBLE HYDROMETEOROLOGICAL NOWCASTING METHODS: TWO CASES OF CONVECTIVE EVENTS IN ITALY 1) Francesco Leonetti, 2) Luca Furnari, 3) Mario Montopoli, 4) Barbara Tomassetti, 5) Annalina Lombardi, 6) Giuseppe Mendicino, 7) Alfonso Senatore 1) Department of Environmental Engineering (DIAm), University of Calabria, 87036 Rende (Cosenza), Italy , 2) Department of Environmental Engineering (DIAm), University of Calabria, 87036 Rende (Cosenza), Italy , 3) National Research Council of Italy, Institute of Atmospheric Sciences and Climate (CNR-ISAC), I-00133 Rome, Italy , 4) CETEMPS, Center of Excellence in Telesensing of Environment and Model Prediction of Severe Events, University of L'Aquila, L'Aquila, Italy , 5) CETEMPS, Center of Excellence in Telesensing of Environment and Model Prediction of Severe Events, University of L'Aquila, L'Aquila, Italy , 6) Department of Environmental Engineering (DIAm), University of Calabria, 87036 Rende (Cosenza), Italy , 7) Department of Environmental Engineering (DIAm), University of Calabria, 87036 Rende (Cosenza), Italy
27	PRECIPITATION MEASUREMENTS IN MARIO ZUCCELLI STATION, ANTARCTICA 1) Claudio Scarchilli, 2) Paolo Grigioni, 3) Lorenzo Desilvestri, 4) Marco Proposito, 5) Antonio Iaccarino, 6) Giuseppe Camporeale, 7) Daniela Meloni, 8) Giandomenico Pace, 9) Virginia Ciardini 1) Laboratory for Observations and Measurements of the Environmental and Climate (SSPT-PROTER-OEM), ENEA, Rome, Italy , 2) Laboratory for Observations and Measurements of the Environmental and Climate (SSPT-PROTER-OEM), ENEA, Rome, Italy , 3) Laboratory for Observations and Measurements of the Environmental and Climate (SSPT-PROTER-OEM), ENEA, Rome, Italy , 4) Laboratory for Observations and Measurements of the Environmental and Climate (SSPT-PROTER-OEM), ENEA, Rome, Italy , 5) Laboratory for Observations and Measurements of the Environmental and Climate (SSPT-PROTER-OEM), ENEA, Rome, Italy , 6) Institute for Electromagnetic Sensing of the Environment (IREA), CNR, UOS Bari, Italy , 7) Laboratory for Observations and Measurements of the Environmental and Climate (SSPT-PROTER-OEM), ENEA, Rome, Italy , 8) Laboratory for Observations and Measurements of the Environmental and Climate (SSPT-PROTER-OEM), ENEA, Rome, Italy , 9) Laboratory for Observations and Measurements of the Environmental and Climate (SSPT-PROTER-OEM), ENEA, Rome, Italy

28	<p>RECENT IMPROVEMENTS OF THE DUTCH REAL-TIME RADAR PRECIPITATION PRODUCT</p> <p>1) Aart Overeem, 2) Hidde Leijnse, 3) Bastiaan Anker, 4) Xueli Wang, 5) Mats Veldhuizen, 6) Ely Deckers, 7) Jouke Jacobi, 8) Ben Lankamp, 9) Tim Vlemmix, 10) Tim den Dulk</p> <p>1) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute , 2) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute , 3) Information and Process Management, Royal Netherlands Meteorological Institute , 4) Information and Process Management, Royal Netherlands Meteorological Institute , 5) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute , 6) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute , 7) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute , 8) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute , 9) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute , 10) R&D Observations and Data Technology, Royal Netherlands Meteorological Institute</p>
29	<p>DETECTING LIGHTNING INITIATION SIGNALS USING A THREE-DIMENSIONAL DUAL-POLARIZATION RADAR DATA</p> <p>1) HAE LIM KIM, 2) MyoungJae SON, 3) Mi-Kyung Suk</p> <p>1) KOREA METEOROLOGICAL ADMINISTRATION - Weather Radar Center - Radar Analysis Division, 2) KOREA METEOROLOGICAL ADMINISTRATION - Weather Radar Center - Radar Analysis Division, 3) KOREA METEOROLOGICAL ADMINISTRATION</p>
30	<p>VERIFICATION OF SURFACE PRECIPITATION TYPES USING GROUND OBSERVATION DATA OVER THE COMPLEX TERRAIN IN KOREA</p> <p>1) Hee-Jeong Choi, 2) Soohyun Kwon, 3) Seungwoo Lee, 4) Sung-Hwa Jung</p> <p>1) Radar analysis division, Weather Radar Center, Korea Meteorological Administration (KMA) , 2) Radar analysis division, Weather Radar Center, Korea Meteorological Administration (KMA) , 3) Radar analysis division, Weather Radar Center, Korea Meteorological Administration (KMA) , 4) Radar analysis division, Weather Radar Center, Korea Meteorological Administration (KMA)</p>
31	<p>THE MEAN DIAMETER UPDATE APPROACH FOR ENSEMBLE-BASED DUAL-POLARIMETRIC RADAR DATA ASSIMILATION</p> <p>1) Kao-Shen Chung, 2) Bing-Xue Zhuang, 3) Wei-Yu Chang, 4) Chih-Chien Tsai</p> <p>1) National Central University , 2) National Central University , 3) National Central University , 4) National Science and Technology Center for Disaster Reduction</p>
32	<p>EVALUATION OF THE KIAPS LETKF-BASED RADAR REFLECTIVITY DA SYSTEM</p> <p>1) DAYOUNG CHOI, 2) Adam Clayton, 3) In-Hyuk Kwon</p> <p>1) Korea Institute of Atmospheric Prediction Systems , 2) Korea Institute of Atmospheric Prediction Systems , 3) Korea Institute of Atmospheric Prediction Systems</p>
33	<p>TOWARDS PROBABILISTIC EXTREME RAINFALL WARNINGS FOR BELGIUM</p> <p>1) Felix Erdmann, 2) Dieter Roel Poelman, 3) Michiel Van Ginderachter, 4) Lesley De Cruz, 5) Ricardo Reinoso Rondinel</p> <p>1) Royal Meteorological Institute of Belgium, Brussels, Belgium , 2) Royal Meteorological Institute of Belgium, Brussels, Belgium , 3) Royal Meteorological Institute of Belgium, Brussels, Belgium , 4) Royal Meteorological Institute of Belgium, Brussels, Belgium - Department of Electronics and Informatics (ETRO), Vrije Universiteit Brussel, Brussels, Belgium - , 5) Civil Engineering, Hydraulics & Geotechnics, KU Leuven, Leuven, Belgium - Royal Meteorological Institute of Belgium, Brussels, Belgium -</p>
34	<p>RADAR POLARIMETRIC SIGNATURES OF SEVERE CONVECTIVE STORMS: TOWARDS AN EARLY WARNING SYSTEM FOR LAKE VICTORIA BASIN</p> <p>1) Anna del Moral Méndez, 2) Tammy Weckwerth, 3) James Wilson, 4) Rita Roberts</p> <p>1) NSF NCAR , 2) NSF NCAR , 3) NSF NCAR , 4) NSF NCAR</p>
35	<p>CONSTRUCTION OF TWO-DIMENSIONAL PRECIPITATION FIELD USING C-BAND TDWR AND S-BAND OPERATIONAL RADAR NETWORK: QUALITY CONTROL, RAINFALL ESTIMATION, AND COMPOSITION</p> <p>1) Young-a Oh, 2) Hae Lim Kim</p> <p>1) WEATHER RADAR CENTER, KMA , 2) WEATHER RADAR CENTER, KMA</p>
36	<p>VARIATION OF BRIGHT BAND STRUCTURES BASED ON WIND PROFILER RADAR NETWORK</p> <p>1) Kyung Hun Lee, 2) Byung Hyuk Kwon, 3) Hyeok Jin Bae, 4) Geon Myeong Lee, 5) Yu Jung Koo, 6) Zi Woo Seo , 7) Geun Mu Kim, 8) Sang Jin Kim</p> <p>1) Pukyong national university , 2) Pukyong national university , 3) Pukyong national university , 4) Pukyong national university , 5) Pukyong national university , 6) Pukyong national university , 7) Pukyong national university , 8) Pukyong national university</p>

37	LONG-TERM INTERCOMPARISON OF RADAR PRECIPITATION NOWCASTING TOOLS ACROSS ITALY 1) Clizia Annella, 2) Vincenzo Capozzi, 3) Gianfranco Vulpiani, 4) Jungho Im, 5) Luca Baldini, 6) Elisa Adirosi, 7) Mario Montopoli 1) Center of Excellence for Telesensing of Environment and Model Prediction of Severe events, University of L'Aquila, L'Aquila, Italy. - Department of Science and Technology, University of Naples "Parthenope", Naples, Italy. -, 2) Department of Science and Technology, University of Naples "Parthenope", Naples, Italy. , 3) Presidenza del consiglio dei ministri – Dipartimento di protezione civile, 00189 Roma, Italia. , 4) Department of Civil, Urban, Earth, and Environmental Engineering, Ulsan National Institute of Science and Technology, Ulsan, South Korea. , 5) National Research Council of Italy, Institute of Atmospheric Science and Climate (CNR-ISAC), Rome, Italy. , 6) National Research Council of Italy, Institute of Atmospheric Science and Climate (CNR-ISAC), Rome, Italy. , 7) National Research Council of Italy, Institute of Atmospheric Science and Climate (CNR-ISAC), Rome, Italy.
38	AUTOMATIC TRACKING AND PREDICTING TROPICAL CYCLONE CENTER BASED ON RADAR-REFLECTIVITY-FIELD FOR THE TYPHOON HINNAMNOR (2022). 1) Sang Jin Kim, 2) Byung Hyuk Kwon, 3) Kyung Hun Lee, 4) Geon Myeong Lee, 5) Hyeok Jin Bae, 6) Zi Woo Seo, 7) Geun Mu Kim, 8) Yu Jung Koo, 9) Bernard Campistron 1) Pukyong National University , 2) Pukyong National University , 3) Pukyong National University , 4) Pukyong National University , 5) Pukyong National University , 6) Pukyong National University , 7) Pukyong National University , 8) Pukyong National University , 9) Observatoire Midi Pyrénées, Laboratoire d'Aérodynamique UMR5560, University of Toulouse, France
39	RAINFALL VARIABILITY MEASURED AT SUB-HOURLY TEMPORAL AND SUB-KILOMETER SPATIAL SCALE 1) Finn Burgemeister, 2) Marco Clemens, 3) Felix Ament 1) Meteorological Institute, Center for Earth System Research and Sustainability (CEN), Universität Hamburg, Germany - METEK Meteorologische Messtechnik GmbH, Germany -, 2) Meteorological Institute, Center for Earth System Research and Sustainability (CEN), Universität Hamburg, Germany , 3) Meteorological Institute, Center for Earth System Research and Sustainability (CEN), Universität Hamburg, Germany
40	A STUDY ON THE ERROR OF INTERPOLATED PRECIPITATION BY GROUND PRECIPITATION GAUGE USING RADAR PRECIPITATION 1) Narae Kang, 2) Jungsoo Yoon, 3) Seokhwan Hwang, 4) Seokhyeon Kim 1) KOREA INSTITUTE of CIVIL ENGINEERING and BUILDING TECHNOLOGY , 2) KOREA INSTITUTE of CIVIL ENGINEERING and BUILDING TECHNOLOGY , 3) KOREA INSTITUTE of CIVIL ENGINEERING and BUILDING TECHNOLOGY , 4) KOREA INSTITUTE of CIVIL ENGINEERING and BUILDING TECHNOLOGY
41	DEVELOPMENT OF AN OBSERVATION OPERATOR FOR DUAL-POLARIZATION RADAR DATA ASSIMILATION 1) Ki-Hong Min, 2) Ji-Won Lee 1) Department of Atmospheric Sciences, Kyungpook National University - BK21 Weather Extremes Education & Research Team - Center for Atmospheric Remote Sensing, 2) Department of Atmospheric Sciences, Kyungpook National University Center for Atmospheric Remote Sensing
42	SEAMLESS PREDICTIONS AT THE ROYAL METEOROLOGICAL INSTITUTE OF BELGIUM 1) Lesley De Cruz, 2) Michiel Van Ginderachter, 3) Maarten Reyniers, 4) Alex Deckmyn, 5) Simon De Kock, 6) Idir Dehmous, 7) Wout Dewettinck, 8) Felix Erdmann, 9) Ruben Imhoff, 10) Arthur Moraux, 11) Ricardo Reinoso Rondinel 1) Royal Meteorological Institute, Brussels, Belgium - Electronics and Informatics (ETRO), Vrije Universiteit Brussel, Brussels, Belgium -, 2) Royal Meteorological Institute, Brussels, Belgium , 3) Royal Meteorological Institute, Brussels, Belgium , 4) Royal Meteorological Institute, Brussels, Belgium , 5) Royal Meteorological Institute, Brussels, Belgium , 6) Royal Meteorological Institute, Brussels, Belgium , 7) Physics and Astronomy, Ghent University, Ghent, Belgium , 8) Royal Meteorological Institute, Brussels, Belgium , 9) Operational Water Management & Early Warning, Deltas, Delft, The Netherlands , 10) Royal Meteorological Institute, Brussels, Belgium - Electronics and Informatics (ETRO), Vrije Universiteit Brussel, Brussels, Belgium -, 11) Royal Meteorological Institute, Brussels, Belgium - Civil Engineering, Hydraulics & Geotechnics, KU Leuven, Leuven, Belgium -
43	TRANSBOUNDARY PRECIPITATION FOR DIGITAL SEWER SYSTEM 1) Alexander Strehz, 2) Cornelius Faßhauer, 3) Thomas Einfalt 1) hydro&meteo GmbH , 2) Techn. Betriebszentrum AöR der Stadt Flensburg , 3) hydro&meteo GmbH
44	SUB-GRID VARIABILITY IN LOCALIZED INTENSE RAIN EVENTS USING HIGH-RESOLUTION OPERATIONAL RADAR DATA IN SWITZERLAND 1) Adrien Liernur, 2) Marco Gabella, 3) Urs Germann, 4) Alexis Berne 1) MeteoSwiss, Locarno-Monti, Switzerland - Environmental Remote Sensing Laboratory, École Polytechnique Fédérale de Lausanne, Switzerland -, 2) MeteoSwiss, Locarno-Monti, Switzerland , 3) MeteoSwiss, Locarno-Monti, Switzerland , 4) Environmental Remote Sensing Laboratory, École Polytechnique Fédérale de Lausanne, Switzerland

45	NATIONAL SCALE DATA-DRIVEN CLASSIFICATION OF POLARISED WEATHER RADAR OBSERVATIONS IN THE UK 1) <i>Maryna Lukach</i> , 2) <i>Mansi Mungee</i> , 3) <i>David Dufton</i> , 4) <i>Elizabeth J. Duncan</i> , 5) <i>Lindsay Bennett</i> , 6) <i>Freya I Addison</i> , 7) <i>William E. Kunin</i> , 8) <i>Christopher Hassall</i> , 9) <i>Ryan R. Neely III</i> 1) National Centre for Atmospheric Science - University of Leeds, UK -, 2) University of Leeds, UK , 3) University of Leeds , 4) University of Leeds , 5) University of Leeds , 6) University of Leeds , 7) University of Leeds , 8) University of Leeds, UK , 9) University of Leeds
46	ANALYSIS OF POTENTIAL EVAPORATION EFFECTS ON C-BAND WEATHER RADAR RAINFALL OBSERVATIONS IN A SEMI-ARID AREA 1) <i>Francesc Polls</i> , 2) <i>Eric Peinó</i> , 3) <i>Mireia Udina</i> , 4) <i>Joan Bech</i> 1) Universitat de Barcelona , 2) Universitat de Barcelona , 3) Universitat de Barcelona , 4) Universitat de Barcelona - Water Research Institute, Universitat de Barcelona -
47	RECENT UPDATES IN THE UNITED STATES MULTI-RADAR MULTI-SENSOR QPE SYSTEM 1) <i>Jian Zhang</i> , 2) <i>Lin Tang</i> , 3) <i>Stephen Cocks</i> , 4) <i>Andrew Osborne</i> , 5) <i>Ami Arthur</i> , 6) <i>Carrie Langston</i> 1) National Severe Storms Lab, Norman, OK, USA , 2) University of Oklahoma, Norman, OK, USA , 3) University of Oklahoma, Norman, OK, USA , 4) National Severe Storms Lab, Norman, OK, USA , 5) University of Oklahoma, Norman, OK, USA , 6) University of Oklahoma, Norman, OK, USA
48	COMPARISON OF SIMULATED AND OBSERVED RADAR DATA IN A TROPICAL MARITIME CONVECTION EVENT DURING THE 2022 PRECIP FIELD CAMPAIGN 1) <i>Ting-Yu Cha</i> , 2) <i>Rosimar Rios-Berrios</i> , 3) <i>Wen-Chau Lee</i> , 4) <i>Christopher A. Davis</i> 1) National Center for Atmospheric Research, Boulder, CO, USA , 2) National Center for Atmospheric Research, Boulder, CO, USA , 3) National Center for Atmospheric Research, Boulder, CO, USA , 4) National Center for Atmospheric Research, Boulder, CO, USA
49	ANALYSIS OF HAIL SIZE AND VERTICALLY INTEGRATED LIQUID DENSITY OVER LIGURIA REGION IN NORTHWESTERN ITALY 1) <i>Antonio Iengo</i> , 2) <i>Marco Tizzi</i> , 3) <i>Francesco Silvestro</i> 1) Agenzia Regionale per la Protezione dell'Ambiente Ligure (ARPAL) , 2) Agenzia Regionale per la Protezione dell'Ambiente Ligure (ARPAL) , 3) CIMA Research Foundation
50	A DEEP LEARNING MODEL WITH EXPLICIT TEMPORAL ENCODING FOR ENHANCING RAINFALL NOWCASTING 1) <i>Ahmed Abdelhalim</i> , 2) <i>Miguel Rico-Ramirez</i> , 3) <i>weiru liu</i> , 4) <i>Dawei Han</i> 1) Department of Civil Engineering, University of Bristol, Bristol BS8 1TR, UK - Geology Department, Faculty of Science, Minia University, Minia 61519, Egypt - , 2) Department of Civil Engineering, University of Bristol, Bristol BS8 1TR, UK , 3) Department of Engineering Mathematics, University of Bristol, Bristol BS8 1TW, UK , 4) Department of Civil Engineering, University of Bristol, Bristol BS8 1TR, UK
51	A MACHINE LEARNING APPROACH FOR QUANTITATIVE PRECIPITATION ESTIMATION IN THE OPERATIONAL CONTEXT OF SOUTHERN BRAZIL 1) <i>Cesar Beneti</i> , 2) <i>Fernanda Verdelho</i> , 3) <i>Rodrigo Lins</i> , 4) <i>Leonardo Calvetti</i> 1) SIMEPAR - Environmental Technology and Monitoring Services, Curitiba, Brazil , 2) SIMEPAR - Environmental Technology and Monitoring Services, Curitiba, Brazil , 3) SIMEPAR - Environmental Technology and Monitoring Services, Curitiba, Brazil , 4) UFPEL - Federal University of Pelotas, Pelotas, Brazil
52	SPATIAL ERROR IN QUANTITATIVE PRECIPITATION ESTIMATION ACCORDING TO RADAR OBSERVATION CHARACTERISTICS 1) <i>Seokhwan Hwang</i> , 2) <i>Jungsoo Yoon</i> , 3) <i>Narae Kang</i> , 4) <i>Seokhyeon Kim</i> 1) KOREA INSTITUTE of CIVIL ENGINEERING and BUILDING TECHNOLOGY , 2) KOREA INSTITUTE of CIVIL ENGINEERING and BUILDING TECHNOLOGY , 3) KOREA INSTITUTE of CIVIL ENGINEERING and BUILDING TECHNOLOGY , 4) KOREA INSTITUTE of CIVIL ENGINEERING and BUILDING TECHNOLOGY
53	OPTIMAL EXPLOITATION OF POLARIMETRY AND OBSERVATION ERROR COVARIANCES FOR PRECIPITATION-INDUCED FLOOD FORECAST (POLARFLOOD) 1) <i>Sagar Pokale</i> , 2) <i>Silke Trömel</i> , 3) <i>Thomas Gastaldo</i> , 4) <i>Virginia Poli</i> 1) Meteorological Institute, University of Bonn, Bonn, Germany , 2) Meteorological Institute, University of Bonn, Bonn, Germany , 3) Arpae Emilia-Romagna, Hydro-Meteo-Climate Structure (Arpae-SIMC), Bologna, Italy , 4) Arpae Emilia-Romagna, Hydro-Meteo-Climate Structure (Arpae-SIMC), Bologna, Italy
54	NOWCASTING OF RAINFALL IN THE TUSCANY TERRITORY 1) <i>Alessandro Mazza</i> , 2) <i>Andrea Antonini</i> , 3) <i>Alberto Ortolani</i> , 4) <i>Samantha Melani</i> 1) LaMMA Consortium - CNR IBE -, 2) LaMMA Consortium , 3) LaMMA Consortium - CNR IBE -, 4) LaMMA Consortium - CNR IBE -
55	CATCHING THE FIRST STAGES OF SUPERCELL STORMS OCCURRED IN NORTHERN ITALY ON JULY 2023 WITH RADAR, LIGHTNING AND NWCSAF SATELLITE DATA FOR EARLY WARNING PURPOSES 1) <i>Miria Celano</i> , 2) <i>Valentina Campana</i> , 3) <i>Roberto Cremonini</i> , 4) <i>Pier Paolo Alberoni</i> , 5) <i>Silvia Puca</i> 1) Arpae Emilia-Romagna, Struttura Idro-Meteo-Clima, Bologna, Italy , 2) Arpa Piemonte, Dipartimento Rischi naturali e ambientali, Torino, Italy , 3) Arpa Piemonte, Dipartimento Rischi naturali e ambientali, Torino, Italy , 4) Arpae Emilia-Romagna, Struttura Idro-Meteo-Clima, Bologna, Italy , 5) Dipartimento di Protezione Civile Nazionale, Rome, Italy

56	MERGING C-BAND AND X-BAND RADAR OBSERVATIONS IN THE ALPINE REGION 1) Renzo Bechini, 2) Valentina Campana, 3) Antioco Vargiu, 4) Orietta Cazzuli 1) Arpa Piemonte , 2) Arpa Piemonte , 3) Arpa Lombardia , 4) Arpa Lombardia
57	SEAMLESS ENSEMBLE RAINFALL FORECASTS WITH REAL-TIME EXTREMITY ASSESSMENT FOR SMALL CATCHMENTS 1) Christian Berndt, 2) Martin Rempel, 3) Markus Schultze, 4) Jan Bondy, 5) Ulrich Blahak 1) Deutscher Wetterdienst , 2) Deutscher Wetterdienst , 3) Deutscher Wetterdienst , 4) Deutscher Wetterdienst , 5) Deutscher Wetterdienst
58	USE OF OPERATIONAL WEATHER RADARS IN THE QUALITY ASSESSMENT OF EUMETSAT H SAF PRECIPITATION PRODUCTS 1) Marco Petracca, 2) Jan Kanak, 3) Bozena Lapeta, 4) Alexander Tonizazzo, 5) Nicoletta Roberto, 6) Silvia Puca 1) Institute of Atmospheric Sciences and Climate, National Research Council (CNR-ISAC), Rome , 2) Slovak Hydrometeorological Institute, Bratislava, Slovakia , 3) Satellite Remote Sensing Department, Institute of Meteorology and Water Management - National Research Institute, Krakow, Poland , 4) Civil Protection Department (DPC), Rome, Italy , 5) Civil Protection Department (DPC), Rome, Italy , 6) Civil Protection Department (DPC), Rome, Italy
59	DISTRIBUTING HYDROLOGICAL RADAR DATA PROCESSING THROUGH CLOUD COMPUTING: A CASE STUDY OF THE VEVA PROJECT'S PROCESSING CHAIN. 1) Rasmus Lauersen, 2) Niels Ejnar Jensen 1) VeVa Denmark , 2) Furuno Denmark A/S
60	IMPACT OF LATENT HEAT NUDGING ON ICON MODEL FORECASTS 1) Virginia Poli, 2) Thomas Gastaldo, 3) Chiara Marsigli, 4) Enrico Minguzzi, 5) Davide Cesari, 6) Pier Paolo Alberoni 1) Arpae Emilia-Romagna, Italy - ItaliaMeteo Agency, Italy -, 2) Arpae Emilia-Romagna, Italy - ItaliaMeteo Agency, Italy -, 3) Deutscher Wetterdienst, Germany - Arpae Emilia-Romagna, Italy - ItaliaMeteo Agency, Italy, 4) Arpae Emilia-Romagna, Italy , 5) Arpae Emilia-Romagna, Italy , 6) Arpae Emilia-Romagna, Italy
61	DEVELOPMENT OF AN OPERATIONAL SYSTEM FOR QUANTITATIVE PRECIPITATION ESTIMATION FROM C-BAND POLARIMETRIC RADARS IN THE FRAMEWORK OF THE PREVENIR PROJECT IN ARGENTINA 1) Maite Cancelada, 2) Daichi Kitahara, 3) Paola Salio, 4) Luciano Vidal, 5) Martin Rugna, 6) Tomoo Ushio, 7) Takemasa Miyoshi, 8) Juan Ruiz, 9) Yanina García Skabar 1) Universidad de Buenos Aires. Facultad de Ciencias Exactas y Naturales. Departamento de Ciencias de la Atmósfera y los Océanos. Buenos Aires, Argentina - Centro de Investigaciones del Mar y la Atmósfera. Buenos Aires, Argentina. Instituto Franco-Argentino de Estudios sobre el Clima y sus Impactos – IRL 3351 – CNRS-CONICET-IRD-UBA. Buenos Aires, Argentina -, 2) Osaka University, Osaka, Japan , 3) Universidad de Buenos Aires. Facultad de Ciencias Exactas y Naturales. Departamento de Ciencias de la Atmósfera y los Océanos. Buenos Aires, Argentina - Centro de Investigaciones del Mar y la Atmósfera. Buenos Aires, Argentina. Instituto Franco-Argentino de Estudios sobre el Clima y sus Impactos – IRL 3351 – CNRS-CONICET-IRD-UBA. Buenos Aires, Argentina -, 4) Servicio Meteorológico Nacional, Buenos Aires, Argentina , 5) Servicio Meteorológico Nacional, Buenos Aires, Argentina , 6) Osaka University, Osaka, Japan , 7) Riken, Kobe, Japan , 8) Universidad de Buenos Aires. Facultad de Ciencias Exactas y Naturales. Departamento de Ciencias de la Atmósfera y los Océanos. Buenos Aires, Argentina - Centro de Investigaciones del Mar y la Atmósfera. Buenos Aires, Argentina. Instituto Franco-Argentino de Estudios sobre el Clima y sus Impactos – IRL 3351 – CNRS-CONICET-IRD-UBA. Buenos Aires, Argentina -, 9) Servicio Meteorológico Nacional, Buenos Aires, Argentina
62	COMPARISON OF THE DIFFERENT RADAR-RAIN GAUGE ADJUSTED PRODUCTS OF GERMANY 1) Matthias Gottschalk, 2) Katharina Lengfeld, 3) Elmar Weigl, 4) Malte Wenzel, 5) Tanja Winterath 1) Deutscher Wetterdienst , 2) Deutscher Wetterdienst , 3) Deutscher Wetterdienst , 4) Deutscher Wetterdienst , 5) Deutscher Wetterdienst
63	ANALYSIS OF TRAJECTORY AND INTENSITY OF EXTREME RAINFALL IN THE TROPICAL ANDES BY USING AN X-BAND RADAR 1) Gabriela Urgilés, 2) Rolando Cáceres, 3) Jörg Bendix, 4) Johanna Orellana-Alvear 1) Departamento de Recursos Hídricos y Ciencias Ambientales, Universidad de Cuenca, Cuenca, Ecuador. - Facultad de Ingeniería, Universidad de Cuenca, Cuenca, Ecuador. -, 2) Departamento de Recursos Hídricos y Ciencias Ambientales, Universidad de Cuenca, Cuenca, Ecuador. - Facultad de Ingeniería, Universidad de Cuenca, Cuenca, Ecuador. -, 3) Laboratory for Climatology and Remote Sensing, Philipps-University Marburg, Marburg, Germany. , 4) Departamento de Recursos Hídricos y Ciencias Ambientales, Universidad de Cuenca, Cuenca, Ecuador. - Facultad de Ciencias Médicas, Universidad de Cuenca, Cuenca, Ecuador -
64	SCALE-DEPENDENT EVALUATION OF DWD'S SEAMLESS SHORT-TERM FORECASTS OF CONVECTIVE PRECIPITATION 1) Martin Rempel, 2) Markus Schultze, 3) Ulrich Blahak 1) Deutscher Wetterdienst , 2) Deutscher Wetterdienst , 3) Deutscher Wetterdienst

65	RAIN, SNOW OR FREEZING RAIN? – RADAR-BASED SURFACE PRECIPITATION TYPE ANALYSIS AND VERIFICATION AT DWD 1) Markus Schultze, 2) Jörg Steinert, 3) Tim Böhme 1) Deutscher Wetterdienst , 2) Deutscher Wetterdienst , 3) Deutscher Wetterdienst
66	FIRST YEAR OF RADAR AND PRECIPITATION OBSERVATIONS AT THE ENEA STATION FOR CLIMATE OBSERVATION OF LAMPEDUSA 1) Giandomenico Pace, 2) Lorenzo De Silvestri, 3) Tatiana Di Iorio, 4) Paolo Grigioni, 5) Virginia Ciardini, 6) Claudio Scarchilli, 7) Damiano Sferlazzo 1) ENEA, Observations and Measurements for Environment and Climate Laboratory , 2) ENEA, Observations and Measurements for Environment and Climate Laboratory , 3) ENEA, Observations and Measurements for Environment and Climate Laboratory , 4) ENEA, Observations and Measurements for Environment and Climate Laboratory , 5) ENEA, Observations and Measurements for Environment and Climate Laboratory , 6) ENEA, Observations and Measurements for Environment and Climate Laboratory , 7) ENEA, Observations and Measurements for Environment and Climate Laboratory
67	WIND FIELD RECONSTRUCTION BY DOPPLER X-BAND RADARS IN MILAN METROPOLITAN AREA. 1) Antioco Vargiu, 2) Luca Baldini, 3) Elisa Adirosi, 4) Umberto Anselmi, 5) Giulio Camisani, 6) Gian Paolo Minardi, 7) Orietta Cazzuli 1) Regional Environmental Protection Agency of Lombardy (ARPA Lombardia), Milan, Italy , 2) National Research Council of Italy, Institute of Atmospheric Sciences and Climate (CNR-ISAC), Rome, Italy , 3) National Research Council of Italy, Institute of Atmospheric Sciences and Climate (CNR-ISAC), Rome, Italy , 4) Regional Environmental Protection Agency of Lombardy (ARPA Lombardia), Milan, Italy , 5) Regional Environmental Protection Agency of Lombardy (ARPA Lombardia), Milan, Italy , 6) Regional Environmental Protection Agency of Lombardy (ARPA Lombardia), Milan, Italy , 7) Regional Environmental Protection Agency of Lombardy (ARPA Lombardia), Milan, Italy
68	EXAMINING MACHINE LEARNING BASED QUANTITATIVE PRECIPITATION ESTIMATION OVER COMPLEX TERRAIN 1) EunYeol Kim, 2) V. Chandrasekar 1) Colorado State University , 2) Colorado State University
	Weather radar and climate
69	AN EVALUATION OF DWD'S LONG RUNNING ADJUSTMENT METHOD FOR THE REAL-TIME AND CLIMATOLOGICAL RADAR-BASED PRECIPITATION PRODUCTS 1) Tabea Wilke, 2) Katharina Lengfeld, 3) Thomas Junghänel, 4) Elmar Weigl 1) Deutscher Wetterdienst , 2) Deutscher Wetterdienst , 3) Deutscher Wetterdienst , 4) Deutscher Wetterdienst
70	SETTING THE BASIS: EXPLORING Z-R RELATIONSHIPS IN X-BAND RADARS IN THE LOMBARDY REGION 1) Nicolás Andrés Chaves González, 2) Alessandro Ceppi, 3) Giovanni Ravazzani, 4) Carlo De Michele 1) Politecnico di Milano , 2) Politecnico di Milano , 3) Politecnico di Milano , 4) Politecnico di Milano
71	CLASSIFICATION OF CONVECTIVE SYSTEMS YIELDING TORNADOES IN JAPAN 1) Taisei Shibayama, 2) Koji Sassa 1) Kochi University , 2) Kochi University
72	QUALITY MAPS FOR HAIL MONITORING AND HAIL ANALYSES AND A LONG-TERM HAIL SIZE ARCHIVE FOR AUSTRIA 1) Vera Katharina Meyer, 2) Lukas Tüchler 1) GeoSphere Austria , 2) Austro Control GmbH
73	RADAR CHARACTERISTICS OF WIND HAZARDS ASSOCIATED WITH DEEP MOIST CONVECTION 1) Miloslav Staněk, 2) Filip Najman, 3) Jan Horák 1) Meteopress - Charles University, Faculty of Science -, 2) Meteopress , 3) Meteopress
74	A RADAR FOR WEATHER MONITORING IN AMAZON BASIN MINING CHAIN 1) Ivan Saraiva, 2) Douglas Batista da Silva Ferreira, 3) Ana Paula Paes dos Santos, 4) Paulo Afonso Fischer Kuhn, 5) Cláudia Priscila Wanzeler da Costa, 6) Renata Gonçalves Tedeschi, 7) Eduardo Carvalho, 8) Fabricio Oliveira Silva, 9) Edmir dos Santos Jesus 1) Operations and Management Center of the Amazon Protection System , 2) Vale Technological Institute , 3) Vale Technological Institute , 4) Federal University of Pará , 5) Vale Technological Institute , 6) Vale Technological Institute , 7) Vale Technological Institute , 8) Vale Technological Institute , 9) Vale Technological Institute