



ERAD 2012
Toulouse France
25-29 June 2012

ERAD 2012

Programme



Sunday, 24 June 2012

17:00 – 19:00 Distribution of conference packages to registered participants and Welcome cocktail at Hôtel d'Assézat (Place d'Assézat, downtown Toulouse).

Note: This ceremony is only open to people who have already registered online. There will be NO on-site registration at Hôtel d'Assézat.

Monday, 25 June 2012

08:00 **Bus transfer to Météo-France**
See conference booklet for details

09:00 **Registration & Welcome coffee** (offered by **BARON SERVICES**)
Centre International de Conférences of Météo-France (CIC)

10:00 **Introduction**
Cochairs: Olivier Bousquet and Pierre Tabary, Météo-France
Location: Amphitheater

Session 1 **Quantitative Precipitation Estimation (Part I)**
(Plenary)
Chair : Alexander Ryzhkov, CIMMS/NSSL
Location : amphitheater

- | | | |
|-------|-----|---|
| 10:30 | 1.1 | <p>To provide accurate rainfall rates with quantified errors. (keynote)
Anthony Illingworth, University of Reading</p> <p style="text-align: right;">short abstract</p> |
| 11:00 | 1.2 | <p>Rainfall estimation from an operational S-band dual-polarization radar in the monsoon dominant environment
Gyuwon Lee, Dept. Astronomy and Atmospheric Sciences, Kyungpook National University, Daegu, Soohyun Kwon, Choong-Ke Lee</p> <p style="text-align: right;">short abstract</p> |
| 11:15 | 1.3 | <p>The new French Operational Polarimetric Radar Rainfall Product
Jordi Figueras i Ventura, Météo France, Fadela Kabeche, Béatrice Fradon, Abdel-Amin Boumahmoud, Pierre Tabary</p> <p style="text-align: right;">short abstract extended abstract</p> |
| 11:30 | 1.4 | <p>Comparison of polarimetric techniques for operational precipitation estimation in complex orography scenarios
Gianfranco Vulpiani, Presidency of the Council of Ministers – Department of Civil Protection, M. Montopoli, A. Gioia, P. Giordano, F.S. Marzano</p> <p style="text-align: right;">short abstract extended abstract</p> |
| 11:45 | 1.5 | <p>VPR Correction of Brightband Effects in Radar QPEs Using Polarimetric Radar Observations
Youcun Qi, National Severe Storms Laboratory (NOAA/NSSL), Pengfei Zhang, Jian Zhang</p> <p style="text-align: right;">short abstract extended abstract</p> |
| 12:00 | 1.6 | <p>Rainfall estimation in mountainous regions using X-band polarimetric weather radar
PC Shakti, National Research Institute for Earth Science and Disaster Prevention, M. Maki, S. Shimizu, T. Maesaka, D.-S. Kim, D.-I. Lee, H. Iida</p> <p style="text-align: right;">short abstract extended abstract</p> |

12:15 1.7 X-band polarimetric radar based QPE and Rainfall statistics in West African Precipitation for Hydrological Applications and Satellite Validation : overview of the objectives and issues.
Marielle Gosset, GET-IRD, Frederic Cazenave, Modeste Kacou
[short abstract](#)

12:30 - 13:30 **Lunch break**

Poster session Group I (day 1)

13:30 - 15:00 *Quantitative Precipitation Estimation - Data Quality - Microphysics - Nowcasting - Spaceborne Radar - Air Traffic Management - Cloud Radar*
 See dedicated poster program p. 15
 Location : marquee

Session 2 Microphysics (Part I)

(Plenary) Chair : Alexis Berne, Ecole Polytechnique de Lausanne
 Location : amphitheater

- 15:00 2.1 Polarimetric signatures of dry and melting hail at different radar wavelengths
Alexander Ryzhkov, CIMMS/NSSL, S. Ganson, M. Kumjian, R. Kaltenboeck
[short abstract](#) [extended abstract](#)
- 15:15 2.2 C-Band dual polarimetric observations of snow events in southern Canada.
Sudesh Boodoo, Environment Canada, D. Hudak, V. N. Bringi, L. Bliven, G. J. Huang, N. Donaldson, M. Leduc
[short abstract](#) [extended abstract](#)
- 15:30 2.3 Precipitation type assessment using polarimetric C-band radar and limited area model
Roberto Cremonini, 1) Arpa Piemonte, Italy; 2) University of Helsinki, Finland, R. Bechini, V. Chandrasekar, V. Campana
[short abstract](#)
- 15:45 2.4 Identification of snow and rain at the surface using polarimetric radar
Martin Hagen, Deutsches Zentrum fuer Luft- und Raumfahrt, Oberpfaffenhofen, Alice Dalphinnet
[short abstract](#)
- 16:00 2.5 Hydrometeor classification using polarimetric radars : intercomparison and hail detection
Hassan Al-Sakka, Météo France, Magalie Buguet, Stephen Frasier, Karine Bouyer, Béatrice Fradon, Abdel-Amin Boumahmoud and Pierre Tabary
[short abstract](#) [extended abstract](#)
- 16:15 2.6 BALTRAD dual polarization hydrometeor classifier
Rashpal S Gill, Danish Meteorological Institute (DMI), Martin B. Soerensen, Thomas Boevith, Jarmo Koistinen, Markus Peura, Daniel Michelson, Roberto Cremonini
[short abstract](#) [extended abstract](#)

16:30 - 17:00 **Coffee break** (offered by EEC)

Session 3A Quantitative Precipitation Estimation (Part II)

(Parallel) Chair : Daniel Sempere-Torres, UPC/CRAHI
 Location : amphitheater

- 17:00 3A.1 The Radar Quality Control and Quantitative Precipitation Estimation Inter-comparison Project
Paul Joe, Environment Canada
[short abstract](#)

- 17:15 3A.2 [On Characterizing the Errors in Quantitative Precipitation Estimates](#)
Alan Seed, Bureau of Meteorology, Sandy Dance
[short abstract](#)
- 17:30 3A.3 [Close-range radar rainfall estimation and error analysis](#)
Remco van de Beek, Hydrology and Quantitative Water Management, Wageningen University, **Hilde Leijnse**, Pieter Hazenberg, and Remko Uijlenhoet
[short abstract](#)
- 17:45 3A.4 [Radar-gauge combination by ordinary and external drift kriging: A systematic application for hourly QPE in Switzerland](#)
Rebekka Erdin, MeteoSwiss, **Christoph Frei**, Reinhard Schiemann, Ioannis Sideris, Hans R. Künsch
[short abstract](#)
- 18:00 3A.5 [Comparison of gauge-radar merging methods for obtaining UK rainfall](#)
Alan Hewitt, UK Met Office, Selena Georgiou, Nicolas Gaussiat, Shona Hogg, Martyn Sunter
[short abstract](#)
- 18:15 3A.6 [Real-time spatiotemporal merging of radar and raingauge measurements in Switzerland.](#)
Ioannis Sideris, MeteoSwiss, Marco Gabella, Rebekka Erdin, Urs Germann
[short abstract](#)

Session 3B		Cloud Radar
(Parallel)		Chair : Pavlos Kollias, McGill University Location: Prudhomme room
17:00	3B.1	Radar detection of cloud properties in a monsoon environment Peter May , Centre for Australian Weather and Climate Research, A partnership between the Bureau of Meteorology and CSIRO, A. Protat, G. Penide, V. Kumar, V.N. Bringi and M. Thurai short abstract
17:15	3B.2	Capability of scanning polarimetric cloud radar measurements for identifying ice hydrometeor habits and shapes. Sergey Matrosov , CIRES, University of Colorado and NOAA ESRL, G.G. Mace, R. Marchand, M.D. Shupe, A.G. Hallar, and I. McCubbin short abstract extended abstract
17:30	3B.3	New insights into orographic precipitation using an airborne profiling Doppler cloud radar Bart Geerts , University of Wyoming, Qun Miao, Yang Yang, Xia Chu short abstract
17:45	3B.4	Towards a CDR-based rain rate estimation algorithm for zenith-pointing cloud radars at Ka band Michele Galletti , Brookhaven National Laboratory, Dong Huang, Pavlos Kollias short abstract extended abstract
18:00	3B.5	Collocated UHF and Ka band radar measurements for rain profile retrievals at ARM SGP facility Frederic Tridon , Earth Observation Sciences, Department of Physics and Astronomy, University of Leicester, Leicester, Alessandro Battaglia, Pavlos Kollias, Edward P. Luke short abstract
18:15	3B.6	A method for extraction of cloud microphysical properties using a continuous wavelet transform of cloud radar spectra Guo Yu , Pennsylvania State University, Johannes Verlinde, Eugene E. Clothiaux, Giovanni Botta, Kultegin Aydin, Alexander Avramov, Andrew S. Ackerman, and Ann M. Fridlind short abstract
18:30 - 20:30		Icebreaker (offered by VAISALA)

Tuesday, 26 June 2012

08:00

Bus transfer to Météo-France

See conference booklet for details

Session 4A Microphysics (Part II)

(Parallel)

Chair : Dmitri Moisseev, University of Helsinki

Location : amphitheater

- | | | |
|-------|------|---|
| 09:00 | 4A.1 | <p>Verification of Dual-wavelength Radar Estimates of Liquid Water Content Using Microwave Radiometer Measurements</p> <p>Scott Ellis, NCAR/EOL, Jothiram Vivekanandan and Paquita Zuidema</p> <p style="text-align: right;">short abstract</p> |
| 09:15 | 4A.2 | <p>A triple frequency approach to retrieve microphysical snowfall parameters</p> <p>Stefan Kneifel, University of Cologne, R. Bennartz, M.S. Kulie, J. Leinonen, D. Moisseev, T. Nousiainen, J. Tyynelä</p> <p style="text-align: right;">short abstract</p> |
| 09:30 | 4A.3 | <p>Statistical Parametrization of the Backscattering Properties of Snowflakes</p> <p>Jussi Leinonen, Finnish Meteorological Institute, D. Moisseev, T. Nousiainen, J. Tyynelä</p> <p style="text-align: right;">short abstract</p> |
| 09:45 | 4A.4 | <p>Stochastic space-time disaggregation of rainfall into DSD fields</p> <p>Marc Schleiss, EPFL-LTE, Alexis Berne</p> <p style="text-align: right;">short abstract extended abstract</p> |
| 10:00 | 4A.5 | <p>Multi-beam raindrop size distribution retrievals on the Doppler spectra</p> <p>Christine Unal, Delft University of Technology</p> <p style="text-align: right;">short abstract extended abstract</p> |
| 10:15 | 4A.6 | <p>Ensemble Retrievals</p> <p>Isztar Zawadzki, McGill University</p> <p style="text-align: right;">short abstract extended abstract</p> |

Session 4B Air Traffic Management

(Parallel)

Chair : Martin Hagen, DLR

Location : Prudhomme room

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|-------|------|---|
| 09:00 | 4B.1 | <p>Test of an X-band Doppler polarimetric radar combined with a Doppler LIDAR for wind shear detection at Nice Airport</p> <p>Clotilde Augros, Météo France, Radar Center, Pierre Tabary, Dominique Davrinche, Eric Schwartz</p> <p style="text-align: right;">short abstract extended abstract</p> |
| 09:15 | 4B.2 | <p>Microwave radar remote sensing of volcanic ash clouds for aviation hazard and civil protection applications: the 2011 Grímsvötn eruption case study</p> <p>Frank S. Marzano, CETEMPS / DIET - Sapienza University of Rome, M. Lamantea, M. Montopoli, D. Cimini, S. Di Fabio, E. Picciotti, G. Vulpiani, M. Herzog, H. Graf</p> <p style="text-align: right;">short abstract extended abstract</p> |
| 09:30 | 4B.3 | <p>Nowcasting near-ground winter precipitation for aviation: a simple approach based on radar observation and NWP model outputs</p> <p>Shinju Park, Hydrometeorological Innovate Solutions S.L., Rafael Sánchez-Diezma, Thomas Gerz, and Felix Keis</p> <p style="text-align: right;">short abstract extended abstract</p> |

- 09:45 4B.4 Radar Sensors for Wind & Wake-Vortex Monitoring on Airport : First results of SESAR P12.2.2 XP0 trials campaign at Paris CDG Airport
Frederic Barbaresco, Thales Air Systems, P. Brovelli, P. Currier, O. Garouste, M. Klein, P. Juge, Y. Ricci, J.Y. Schneider
[short abstract](#) [extended abstract](#)
- 10:00 4B.5 Simulation of the Radar Cross-Section of Wake Vortices in clear air
Danielle Vanhoenacker-Janvier, ICTEAM, Université catholique de Louvain (UCL), K. Djafri, R. della Faille de Leverghem, B. van Swieten, F. Barbaresco
[short abstract](#) [extended abstract](#)
- 10:15 4B.6 Progress toward a volumetric in-flight icing hazard detection system for airports which incorporates operational dual-polarization S-band radar data
David Serke, National Center for Atmospheric Research, Scott Ellis, Andrew L. Reehorst, John Hubbert, David Albo, Andrew Weekley Daniel Adriaansen Andrew Gaydos and Marcia K. Politovich, Christopher Johnston
[short abstract](#) [extended abstract](#)

10:30 - 11:00 **Coffee break** (offered by METEK)

Session 5 Spaceborne Radars

(Plenary) Chair : Frank Marzano, University of L'Aquila
Location : amphitheater

- 11:00 5.1 Precipitation Estimation Using Combined Radar/Radiometer Measurements Within the GPM Framework (**keynote**)
Arthur Y. Hou, NASA Goddard Space Flight Center, USA
[short abstract](#)
- 11:30 5.2 New Constraints on the Global Distribution of Snowfall from CloudSat
Tristan L'Ecuyer, University of Wisconsin-Madison, Norman Wood, Mark Kulie, Ralf Bennartz
[short abstract](#)
- 11:45 5.3 Error analysis of spaceborne precipitation radar estimates using NOAA/NSSL National Mosaic QPE products
Pierre-Emmanuel Kirstetter, University of Oklahoma and NOAA/National Severe Storms Laboratory, Y. Hong, J. J. Gourley, J. Zhang, M. Schwaller, W. Petersen, E. Amitai
[short abstract](#) [extended abstract](#)
- 12:00 5.5 Observing convection from space: assessment of performances for next-generation Doppler radars on Low Earth Orbit
Alessandro Battaglia, Earth Observation Science, Department of Physics and Astronomy, University of Leicester, Leicester, UK, Simone Tanelli, Pavlos Kollias, Tomasz Augustynek, Ousmane Sy
[short abstract](#)
- 12:15 5.5 Multiple wavelength perspective of precipitation and drop size distribution characteristics in MC3E
Stephen Nesbitt, University of Illinois, K Gleicher, G Heymsfield, A Heymsfield, A Bansemer, A Neumann, M Poellot, S Collis, P Kollias
[short abstract](#)

12:30 - 13:30 **Lunch break**

Poster session Group I (day 2)

- 13:30 - 15:00 Quantitative Precipitation Estimation - Data Quality - Microphysics - Nowcasting - Spaceborne Radar - Air Traffic Management - Cloud Radar
See detailed poster program p. 15
Location : marquee

Session 6		Quantitative Precipitation Estimation (Part III)	
(Plenary)		Chair : Anthony Illingworth, University of Reading Location : amphitheater	
15:00	6.1	Dallas Fort Worth Urban Demonstration Network V.Chandra Chandrasekar , Colorado State University, Brenda Philips	short abstract extended abstract
15:15	6.2	A real-time procedure for adjusting radar data using raingauge information II: Initial performance of the PMM procedure Chris Collier , National Centre for Atmospheric Science, University of Leeds, John Black, John Powell and Richard Mason	short abstract extended abstract
15:30	6.3	Investigation of the unusual polarimetric signatures of a mountainous convective event Jacopo Grazioli , Ecole Polytechnique Fédérale de Lausanne (EPFL) - Environmental Remote Sensing Laboratory (LTE), Alexis Berne	short abstract extended abstract
15:45	6.4	Variability of differential phase at X band Silke Trömel , Meteorological Institute of the University of Bonn, Bonn, Alexander Ryzhkov, Matthew Kumjian, Clemens Simmer, Ali Tokay, Jan-Bernd Schroer	short abstract extended abstract
16:00	6.5	Design and test of an X-band optimal rain rate estimator in the frame of the RHYTMME Project Fadela Kabeche , Météo-France, Jordi Figueras I Ventura, Béatrice Fradon, Abdel-Amin Boumahmoud, Stephen Frasier, Pierre Tabary	short abstract extended abstract
16:15	6.6	Influence of the DSD variability at the radar subgrid scale on radar power laws Joël Jaffrain, EPFL-LTE, Alexis Berne	short abstract
16:30 - 17:00		Coffee break (offered by CNR)	

Session 7		Microphysics (Part III)	
(Plenary)		Chair : Remko Uijlenhoet, Wageningen University Location : amphitheater	
17:00	7.1	Taking the Microphysical Fingerprints of Storms with Dual-Polarization Radar Matthew Kumjian , Cooperative Institute for Mesoscale Meteorological Studies, The University of Oklahoma, and NOAA/OAR/National Severe Storms Laboratory, Alexander V. Ryzhkov, Silke Trömel, and Clemens Simmer	short abstract extended abstract
17:15	7.2	Inference of dominating snow growth processes from radar observations Dmitri Moiseev , University of Helsinki, Larry Bliven, Pablo Saavedra, Susanna Lautaportti, Alessandro Battaglia, V. Chandrasekar	short abstract
17:30	7.3	Microphysics in West African squall lines : space-time variability of the dominant particle type analyzed with an Xband polarimetric radar and an Hydrometeor Identification Scheme. Frederic Cazenave, LTHE - IRD, Marielle Gosset	short abstract
17:45	7.4	Microphysical properties of localized convective precipitation observed by X-band polarimetric radar and disdrometer networks in the Tokyo Metropolitan area, Japan Sung-A Jung , Pukyong National University, Masayuki Mali, Dong-In Lee, Dong-Soon Kim, Su-Kyung Kim, and Shyuichi Tsuchiya	short abstract

- 18:00 7.5 Comparison rainfall microphysics estimates from dual-polarization X-band with a 2D video disdrometer, a Parsivel disdrometer and a Micro Rain Radar
Marios Anagnostou, National Observatory of Athens, Institute of Environmental Research and Sustainable Development (IERSD), Athens, Greece, John Kalogiros, Joel Van Baele, Emmanouil N. Anagnostou, Frank S. Marzano, and Anastasios Papadopoulos
[short abstract](#) [extended abstract](#)
- 18:15 7.6 Observation of high resolution vertical profiles of X-band weather radar observables during snowfall in the Swiss Alps
Marc Schneebeli, École Polytechnique Fédérale de Lausanne (EPFL), Environmental Remote Sensing Laboratory (LTE), Lausanne, Alexis Berne
[short abstract](#)
- 18:30 **Bus transfer to Toulouse**

19:30 **Cocktail at City Hall** (offered by **TOULOUSE MUNICIPALITY**)

Wednesday, 27 June 2012

08:00 **Bus transfer to Météo-France**
 See conference booklet for details

Session 8A Data Quality

(Parallel)

Chair : Daniel Michelson, SMHI
 Location : amphitheater

- 09:00 8A.1 Interaction Between Beam Blockage and Vertical Reflectivity Gradients
Norman Donaldson, Environnement Canada
[short abstract](#) [extended abstract](#)
- 09:15 8A.2 An introduction to the Met Office radar data quality management system (RDQMS)
Selena Georgiou, The Met Office, Dawn Harrison, Nicolas Gaussiat, Robert Scovell
[short abstract](#)
- 09:30 8A.3 Improving the quality of European weather radar composites with the BALTRAD toolbox
Anders Henja, Swedish Meteorological and Hydrological Institute, Daniel Michelson
[short abstract](#) [extended abstract](#)
- 09:45 8A.4 Differential Reflectivity Calibration For Simultaneous Horizontal and Vertical Transmit Radars
John Hubbert, National Center for Atmospheric Research (NCAR), M. Dixon, R. Ice, D. Saxion, A. Heck
[short abstract](#) [extended abstract](#)
- 10:00 8A.5 Correcting attenuation in operational radars from both heavy rain and the radome using the observed microwave emission
Robert Thompson, Dept of Meteorology, University of Reading, Anthony Illingworth, Tim Darlington, James Ovens
[short abstract](#)
- 10:15 8A.6 Data quality in BALTRAD+ Project
Jan Szturc, Institute of Meteorology and Water Management, Katarzyna Ośródk a, Daniel Michelson, Günther Haase, Markus Peura, Rashpal Gill, Martin B. Sørensen, Anna Jurczyk
[short abstract](#) [extended abstract](#)

Session 8B Nowcasting

(Parallel)

Chair : Urs Germann, MeteoSwiss
 Location : Prudhomme room

09:00	8B.1	Probabilistic rainfall warning system with an interactive user interface Jarmo Koistinen , Finnish Meteorological Institute, Tuomo Lauri, Harri Hohti, Janne Kauhanen, Juha Kilpinen, Vesa Kurki, Pertti Nurmi, Pekka Rossi, Miikka Jokelainen, Mari Heinonen, Tommi Fred, Dmitri Moisseev short abstract extended abstract
09:15	8B.2	Nowcasting of orographic rainfall by means of radar data sequences: limits of predictability Loris Foresti , Centre for Australian Weather and Climate Research, Luca Panziera, Pradeep Venkata Mandapaka, Alexei Pozdnoukhov, Urs Germann, Alan Seed short abstract extended abstract
09:30	8B.3	An approach to the use of NWP forecasts to improve an ensemble nowcasting technique Marc Berenguer , CRAHI-UPC, Daniel Sempere-Torres short abstract
09:45	8B.4	The use of radar data for the nowcasting of convection Jean-Marc Moisselin , Météo-France, Pascal Brovelli, Isabelle Bernard Bouissières short abstract extended abstract
10:00	8B.5	Lightning detection and prediction evaluation by microwave ground based radar and infrared space-born integrated approach Mario Montopoli , Univ. of Cambridge, UK and Univ. of L' Aquila Italy (CETEMPS), D. Cimini, E. Picciotti, S. Di Fabio and F. S. Marzano short abstract extended abstract
10:15	8B.6	Kalman filtering based probabilistic nowcasting of object oriented tracked convective storms Pekka J Rossi , Finnish Meteorological Institute, V. Chandrasekar, Vesa Hasu short abstract extended abstract
10:30 - 11:00	Coffee break (offered by GAMIC)	

Session 9		Signal Processing (Part I)
(Plenary)		Chair : Paul Joe, Environnement Canada Location : amphitheater
11:00	9.1	Signal processing challenges in phased-array radar meteorology (keynote) Stephen Frasier , University of Massachusetts
11:30	9.2	Rapid scanning with phased array radars – issues and potential resolution Dusan Zrnic , NOAA/NSSL, V.M. Melnikov, R.J. Doviak short abstract extended abstract
11:45	9.3	Validation of the refractivity measurement from non-coherent dual-polarisation operational weather radar of the ARAMIS network Lucas Besson , Météo France - DSO/CMI, Jacques Parent-du-Chatelet short abstract extended abstract
12:00	9.4	Measuring snowfall with a low-power K-band radar (Micro Rain Radar) in polar regions Maximilian Maahn , University of Cologne, Maximilian Maahn, Pavlos Kollias, Stefan Kneifel, Irinia Gorodetskaya, Gerhard Peters and Clemens Simmer short abstract extended abstract
12:15	9.5	Countrywide rainfall maps from a commercial cellular telephone network Aart Overeem , Hydrology and Quantitative Water Management Group, Wageningen University, Hidde Leijnse, Remko Uijlenhoet short abstract
12:30 - 13:30	Lunch break	

Poster session Group II (day 1)

13:30 - 15:00	<i>Hydrological Studies - Signal Processing - Numerical Weather Prediction – Networking - Radar Case studies - Non Meteorological Use of Radars</i> <i>See detailed poster program p. 22</i> <i>Location : marquee</i>
15:00 - 16:00	Coffee break (offered by EDF)
16:00	Bus transfer to Toulouse
17:00 – 19:00	Cruise on Garonne River
19:30	Gala Dinner (offered by SELEX-GEMATRONIK)

Thursday, 28 June 2012

08:00	Bus transfer to Météo-France <i>See conference booklet for details</i>
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Session 10		Networking (Part I)
(Plenary)		<i>Chair : Christopher Collier, University of Leeds</i> <i>Location : amphitheater</i>
09:00	10.1	The French operational radar network and products Jean-Louis Champeaux, Météo France, Direction des Systèmes d'Observation, CMR, Jean-Luc Chèze, Pierre Tabary short abstract
09:15	10.2	Advanced weather radar networking with BALTRAD+ Michelson Daniel, Swedish Meteorological and Hydrological Institute short abstract extended abstract
09:30	10.3	EUMETNET OPERA Radar Data Centre - Odyssey: An operational service and future plans Stuart Matthews, UK Met Office, Nicolas Gaussiat, Robert Scovell, Daniel Idziorek, Karine Bouyer short abstract extended abstract
09:45	10.4	Next generation radar precipitation measurement in the Swiss Alps: strategy and first results Urs Germann, MeteoSwiss, Marco Gabella, Marco Boscacci, Ioannis Sideris, Maurizio Sartori, Alessandro Hering, Lorenzo Clementi, Marco Sassi short abstract
10:00	10.5	Measurements of a network of mobile radars for flood applications during the field campaign of the HydroRad project John Kalogiros, NOA, National Observatory of Athens, Athens, M. N. Anagnostou, F. S. Marzano, E. Picciotti, G. Cinque, M. Montopoli, L. Bernardini, E. N. Anagnostou, A. Volpi, and A. Telleschi short abstract extended abstract
10:15	10.6	Tokyo Metropolitan Area Convection Study for Extreme Weather Resilient Cities (TOMACS) Masayuki Maki, National Research Institute for Earth Science and Disaster Prevention, R. Misumi, S. Suzuki, T. Kobayashi, A. Adachi, I. Nakamura, and TOMACS members short abstract extended abstract

10:30 - 11:00 **Coffee break** (offered by NOVIMET)

Session 11 Hydrological Studies

(Plenary)

Chair : Brice Boudevillain, LTHE

Location : amphitheater

- 11:00 11.1 A perspective on radar hydrology based on space-time scales (**keynote**)
Guy Delrieu, LTHE
[short abstract](#)
- 11:30 11.2 Usefulness of radar QPE for mediterranean flash flood ensemble forecasting
Béatrice Vincendon, Météo-France, GAME/CNRM, CNRS, **Véronique Ducrocq**, Olivier Nuissier, **Benoît Vié**
[short abstract](#)
- 11:45 11.3 A Hydrologically Relevant Framework for QPE Evaluation and Probabilistic Flood Prediction
Zachary Flamig, Atmospheric Radar Research Center, **Jonathan Gourley**, Yang Hong, Manos Anagnostou
[short abstract](#)
- 12:00 11.4 A contemporary demonstration system for flash flood forecasting in the US
Jonathan Gourley, NOAA/National Severe Storms Laboratory, Yang Hong, Kenneth Howard, **Zachary Flamig**
[short abstract](#)
- 12:15 11.5 Hydrometeorological risks in Mediterranean mountainous areas.
RHYTMME Project : Risk Management based on a Radar Network
Samuel Westrelin, Météo-France, P. Mériaux, P. Tabary, Y. Aubert
[short abstract](#) [extended abstract](#)

12:30 – 13:00 **Lunch break**

Poster session Group II (day 2)

- 13:30 - 15:00 Hydrological Studies - Signal Processing - Numerical Weather Prediction – Networking - Radar Case studies - Non Meteorological Use of Radars

See detailed poster program p. 22
Location : marquee

Session 12 Radar Case Studies

(Plenary)

Chair : Jarmo Koistinen, FMI

Location : amphitheater

- 15:00 12.1 Rapid-scan, polarimetric, mobile Doppler radar observations at X-band of an EF-5 tornado in Oklahoma on 24 May 2011
Howard Bluestein, School of Meteorology, University of Oklahoma, **Jeffrey C. Snyder**, Jana B. Houser, and Andrew L. Pazmany
[short abstract](#) [extended abstract](#)
- 15:15 12.2 Daily and annual cycles of precipitation and convection over the continental United States
Frederic Fabry, McGill University
[short abstract](#) [extended abstract](#)
- 15:30 12.3 Multiple-Doppler and In Situ Studies of the Hurricane Boundary Layer
Karen Kosiba, Center for Severe Weather Research, **Joshua Wurman**
[short abstract](#)
- 15:45 12.4 Observations of Bores and Implications for Nocturnal Convective Systems
David Parsons, U of Oklahoma, **Kevin Haghi**, **Junhong Wang**
[short abstract](#)

- 16:00 12.5 Characterization of precipitation features in the Southeastern United States using high spatial and temporal resolution quantitative precipitation estimates derived from the National Mosaic and Multi-sensor QPE (NMQ/Q2)
Olivier Prat, Cooperative Institute for Climate and Satellites-NC (CICS-NC), NCSU/NOAA/NCDC, Asheville, NC, Brian R. Nelson, and Scott Stevens
[short abstract](#)
- 16:15 12.6 GBVTD-retrieved near-surface vortex structure in a tornado and tornado-like vortices observed by a W-band radar during VORTEX2
Robin Tanamachi, Center for Analysis and Prediction of Storms (CAPS, Mingjun Wang, Ming Xue, Howard B. Bluestein, Krzysztof A. Orzel, Stephen J. Frasier
[short abstract](#) [extended abstract](#)

16:30 - 17:00 **Coffee break** (offered by IRSTEA)

Session 13A Networking (Part II)

(Parallel)

Chair : Hidde Leijnse, KNMI

Location : amphitheater

- 17:00 13A.1 Deployment Considerations and Hardware Technologies for Realizing X-Band Radar Networks
Robert A. Palumbo, Eric Knapp, Ken Wood, **David J. McLaughlin**, University of Massachusetts
[short abstract](#) [extended abstract](#)
- 17:15 13A.2 The Doppler On Wheels (DOW) dual-frequency, dual-polarization and Rapid-Scan mobile radar network
Joshua Wuman, Center for Severe Weather Research
[short abstract](#)
- 17:30 13A.3 Towards wind farms and meteorological radar coexistence: guidelines for mitigating impacts and examples of operational corrections,
Daniel Sempere-Torres, Centre de Recerca Aplicada en Hidrometeorologia (CRAHI), Marc Berenguer, Alberto Pattazzi, Santiago Salsón
[short abstract](#)
- 17:45 13A.4 Gap-filling, X-band radars as part of the RHYTMME program : an opportunity to retrieve real-time, multiple-Doppler wind fields in previously inaccessible regions of southeast France
Jeffrey Beck, Météo-France/CNRM, Olivier Bousquet
[short abstract](#) [extended abstract](#)
- 18:00 13A.5 Precipitation and Attenuation Estimates from a High Resolution Weather Radar Network (PATTERN) – Development of Retrievals for a Radar Network
Nicole Feiertag, Meteorological Institute, University of Hamburg, Marco Clemens, Katharina Lengfeld, Felix Ament
[short abstract](#)
- 18:15 13A.6 Performance of the National Network of LAWR X-Band radars in El Salvador during the 1500 mm rainfall in October 2011
N. E. Jensen, DHI, R. Ceron, L. Menjivar, E. Escobar
[short abstract](#)

Session 13B Signal Processing (Part II)

(Parallel)

Chair : Stephen Frasier, University of Massachusetts

Location : Prudhomme room

- 17:00 13B.1 The separation of noise and signal components in Doppler RADAR returns
Michael Dixon, National Center for Atmospheric Research, Boulder, Colorado, John Hubbert
[short abstract](#) [extended abstract](#)

17:15	13B.2	New Weather-Surveillance Capabilities for NSSL's Phased-Array Radar Sebastian Torres , National Severe Storms Laboratory, Ric Adams, Chris Curtis, Eddie Forren, Igor Ivic, David Priegnitz, John Thompson, and David Warde short abstract extended abstract
17:30	13B.3	Strobe Waveform for Rapid Scanning Polarimetric Weather Radars Andrew Pazmany , ProSensing Inc., James B. Mead, Jeffrey C. Snyder and Howard B. Bluestein short abstract extended abstract
17:45	13B.4	SiPRÉ, a software simulator of the perturbation of radars by wind turbines G��rard Bobillot , Onera, Lalaina Rasoanaivo, Pierre Nguyen, Eric Chaumette, Philippe Fargette, Jean-Fran��ois Petex, Sophie Langlet short abstract extended abstract
18:00	13B.5	Multi Polarization Measurements concerning various aspects of the STAR mode Jens Reimann , DLR, Martin Hagen short abstract extended abstract
18:15	13B.6	Multi-PRI and SMPRF software update for weather radars Joern Sierwald , Eigenor short abstract extended abstract
18:30		Bus transfer to Toulouse

Friday, 29 June 2012

08:00 **Bus transfer to M  t  o-France**
See conference booklet for details

Session 14 Numerical Weather Prediction

(Plenary)

Chair : Olivier Caumont, M  t  o-France
Location : amphitheater

09:00	14.1	Operational assimilation of radar data at convective scale in AROME France : current status and international cooperations Thibaut Montmerle , CNRM/GAME (M��t��o-France/CNRS), AEMET – Spain short abstract
09:15	14.2	Assimilation of Radar Doppler Wind David Simonin , UK Met Office, Sue Ballard, Zhihong Li short abstract
09:30	14.3	Assimilation of ground-based rainfall observations in ECMWF's global 4D-Var system Philippe Lopez , ECMWF short abstract extended abstract
09:45	14.4	The strengths and weaknesses of using radar for long-term monitoring of precipitation forecast skill Marion Mittermaier , Met Office short abstract
10:00	14.5	Operational radar refractivity retrieval and its potential use in Numerical Weather Prediction models. John Nicol , Dept of Meteorology, University of Reading , Anthony Illingworth, Tim Darlington, James Ovens, Nicolas Gaussiat short abstract

10:15 14.6 Optimization and evolution of the assimilation of radar data in the AROME model at Météo-France
Eric Wattrelot, Météo-France/CNRM/GAME

[short abstract](#)

[extended abstract](#)

10:30 - 11:00 **Coffee break** (offered by **BARON SERVICES**)

Session 15 Non Meteorological Use of Weather Radar

(Plenary)

Chair : Jonathan Gourley, NOAA/NSSL

Location : amphitheater

11:00 15.1 Monitoring and forecasting airborne animal migration by radar meteorologists - a new task ?
(**keynote**)

Felix Liechti, Swiss Ornithological Institute

[short abstract](#)

11:30 15.2 The response of birds to abrupt natural hazards as observed using weather radar
Phillip B. Chilson, University of Oklahoma, Amy Daniel, Stephen B. Cocks, Daniel Berkowitz, Valery Melnikov, Winifred F. Frick, Andrew Wood, and Jeffrey F. Kelly

[short abstract](#)

[extended abstract](#)

11:45 15.3 Bird migration monitoring across Europe using weather radar
Martin de Graaf, Royal Netherlands Meteorological Institute (KNMI), H. Leijnse, A. Dokter, J. Shamoun-Baranes, H. van Gasteren, J. Koistinen, and W. Bouten

[short abstract](#)

[extended abstract](#)

12:00 15.4 Use of archived radar products for investigating influence of meteorological cues on animal behaviors in the aerosphere
Winifred Frick, Ecology and Evolutionary Biology, University of California, Santa Cruz, Phillip M. Stepanian, Jeffrey F. Kelly, Daniel E. Scipión, Sarah M. Stough, Charles M. Kuster, Thomas H. Kunz, Kenneth W. Howard and Phillip B. Chilson

[short abstract](#)

[extended abstract](#)

12:15 15.5 Quantifying Animal Phenology in the Aerosphere Using Weather Radar
Jeffrey F. Kelly, University of Oklahoma, J. Ryan Shipley, Winifred F. Frick, Kenneth W. Howard, Thomas H. Kunz and Phillip B. Chilson

[short abstract](#)

12:30 Closing ceremony

Cochairs: Olivier Bousquet and Pierre Tabary, Météo-France

Location : amphitheater

13:00 Lunch

13:00 - 14:00 **Bus transfer to Toulouse & Airport**

POSTER PROGRAMME GROUP I

Monday 25 June & Tuesday 26 June, 13:30 – 15:00

Location : marquee

Quantitative Precipitation Estimation - Data Quality - Microphysics - Nowcasting -
Spaceborne Radar - Air Traffic Management - Cloud Radar

Quantitative Precipitation Estimation (QPE)

- 1 QPE [Operational Bias Correction of Hourly Radar Precipitation Estimate using Rain Gauges](#)
Roberta Amorati, ARPA Emilia-Romagna Servizio IdroMeteoClima, Pier Paolo Alberoni, Anna Fornasiero
[short abstract](#) [extended abstract](#)
- 2 QPE [RAINSCANNER@BCN: An experiment to assess the hydrological value of a portable X-band radar](#)
Marc Berenguer, CRAHI-UPC, Shinju Park, Daniel Sempere-Torres, Jens Didszun, Marcus Pool, Monika Pfeifer
[short abstract](#) [extended abstract](#)
- 3 QPE [Rain rate estimation combining rain gauge, radar and microwave link data](#)
Blandine Bianchi, EPFL - LTE, Alexis Berne
[short abstract](#)
- 4 QPE [A real-time procedure for adjusting radar data using raingauge information I: System description](#)
John Black, University of Leeds and Hydro-Logic Ltd , John Powell, Chris. Collier and Richard Mason
[short abstract](#) [extended abstract](#)
- 5 QPE [Adaptive estimation of rainfall from bright band with polarimetric radar](#)
Lesya Borowska, NSSL, NOAA, Dusan Zrnec
[short abstract](#)
- 6 QPE [Distributions functions of rainfall estimates from polarimetric measurements at X-band in tropical Brazil](#)
Roberto Calheiros, IPMet/- UNESP - Voluntary Researcher, Maria Andrea Lima, Ana Maria Gomes, Carlos Frederico de Angelis, Luiz Augusto Toledo Machado, Izabelly Carvalho da Costa, Jójhy Skuragi, Paulo Sergio Borges
[short abstract](#) [extended abstract](#)
- 7 QPE [The french radar QPE : operational algorithm, case studies and perspectives](#)
Jean-Louis Champeaux, Météo-France, Valérie Vogt, Catherine Brossard
[short abstract](#)
- 8 QPE [Improving the fine scale rainfall estimates of a local area weather radar. Case of X-Band radar at Leuven, Belgium](#)
Laurens Cas Decloedt, University of Leuven , Patrick Willems
[short abstract](#) [extended abstract](#)
- 9 QPE [Validation of attenuation, beam blockage, and calibration estimation methods using two dual polarization X band weather radars](#)
Malte Diederich, Meteorological Institute of the University of Bonn, Alexander Ryzhkov, Clemens Simmer, Kai Mühlbauer
[short abstract](#)
- 10 QPE [The challenge to estimate extreme precipitation for locations without rain gauges](#)
Thomas Einfalt, Hydro & meteo GmbH & Co. KG, Inga Frek
[short abstract](#) [extended abstract](#)
- 11 QPE [C-Band polarimetric Quantitative Precipitation Estimation in the Lake Michigan region](#)
Raquel Evaristo, Valparaiso University, Teresa Bals-Elsholz, Adam Stepanek
[short abstract](#)
- 12 QPE [Radar-based statistics of point and areal rainfall](#)
Edouard Goudenhoofd, Royal Meteorological Institute, Laurent Delobbe
[short abstract](#) [extended abstract](#)
- 13 QPE [X-band polarimetric radar data set of alpine precipitation](#)
Jacopo Grazioli, Ecole Polytechnique Fédérale de Lausanne (EPFL) - Environmental Remote Sensing Laboratory (LTE), Marc Schneebeli, Danny Scipion, Alexis Berne
[short abstract](#)
- 14 QPE [Raincell based identification of the vertical profile of reflectivity as observed by weather radar and its possibility for precipitation uncertainty estimation](#)
Pieter Hazenberg, Hydrology and Quantitative Water Management, Wageningen University, **Hidde Leijnse**, Paul Torfs, Remko Uijlenhoet
[short abstract](#)

- 15 QPE [Uncertainties in radar rainfall fields due to the Z-R relationships adjustment schemes](#)
Lili Huang, College of Resources and Environment, Anhui Agricultural University,
Christian Salles, Marie-George Tournoud, Chu Yin, Julie Carreau and Claire Rodier
[short abstract](#) [extended abstract](#)
- 16 QPE [Retrieving QPE uncertainty information based on regression trees](#)
Stephan Jacobi, University of Potsdam, Tobias Pilz, Maik Heistermann
[short abstract](#)
- 17 QPE [Sensitivity analysis of polarimetric attenuation correction algorithms](#)
Samuel Jolivet, , **A. Berne**
[short abstract](#)
- 18 QPE [Quantitative Precipitation Estimation \(QPE\) based on an Xband polarimetric Radar in West Africa : a comparison of methods based on self-consistency and comparison with rain gages and disdrometers .](#)
Modeste Kacou, IRD LAPA-MF -/ Cote d'Ivoire, Marielle Gosset, Frederic Cazenave, Delfin Ochou, Augustin Kadjo
[short abstract](#)
- 19 QPE [Validation of rainfall estimation with the NIMR X-POL Radar](#)
Miyoung Kang, National Institute of Meteorological Research/KMA, Seon-Yong Lee, Kyung-Yeub Nam, Young-Jean Choi, Cheol-Hwan You
[short abstract](#)
- 20 QPE [A comparative evaluation of three geostatistical radar-rain gauge combination methods in Switzerland](#)
Denise Keller, Federal Office of Meteorology and Climatology MeteoSwiss, Zürich , David Masson, Rebekka Erdin, Ioannis Sideris, Urs Germann, Marco Gabella, Christoph Frei
[short abstract](#)
- 21 QPE [Use of the Dual Kalman Filter for Real-time Decision of G/R Ratio](#)
Jungho Kim, Korea Univ, Jungsoo Yoon, Chulsang Yoo
[short abstract](#) [extended abstract](#)
- 22 QPE [Marine X-band radar based rainfall estimate applied to local weather information system](#)
Min-Seong Kim, Kwang-Ho Jin, Park -Sa Kim, Kwang-Ho Kim, Dae-Il Seo, Dong-Hwan Kwang, Byung-Hyuk Kwon
[short abstract](#) [extended abstract](#)
- 23 QPE [Estimation and Validation of Accumulated Precipitation using Radar Data in Korea](#)
Hye-Young Ko, National Institute of Meteorological Research/Korea Meteorological Administration, Kyung-Yeub Nam, Jae-Cheon Choi and Young-Jean Choi
[short abstract](#)
- 24 QPE [A 10-year \(1997–2006\) reanalysis of quantitative precipitation estimation over France](#)
Olivier Laurantin, Météo-France, Pierre Tabary, Pascale Dupuy, Guy L'Henaff, Christophe Merlier, Jean-Michel Soubeyroux
[short abstract](#) [extended abstract](#)
- 26 QPE [Non-negative KDP Estimation by Monotone Increasing PHIDP Assumption below Melting Layer](#)
Takeshi Maesaka, National Research Institute for Earth Science and Disaster Prevention, Koyuru Iwanami and Masayuki Maki
[short abstract](#) [extended abstract](#)
- 27 QPE [Statistical characterization of C-band single-polarization radar retrieval space-time error in complex orography](#)
Frank S. Marzano, CETEMPS / DIET - Sapienza University of Rome, M. Montopoli, S. Di Fabio, G. Vulpiani, E. Picciotti
[short abstract](#) [extended abstract](#)
- 28 QPE [Evaluation of precipitation estimation using radar and precipitation forecast models in Korea](#)
Kyung-Yeub Nam, KMA, Ha-Young Yang, Jin-Yim Jeong, and Young-Jean Choi
[short abstract](#)
- 29 QPE [Rainfall estimation using X-band dual-polarimetric measurements: Correction for rain attenuation and validation of various estimators](#)
Young-A Oh, Dept. Astronomy and Atmospheric Sciences, Kyungpook National University, GyuWon Lee, Kyung-Yeub Nam
[short abstract](#)
- 30 QPE [Rainfall rate retrieval with IDRA, the polarimetric X-band radar at Cabauw, Netherlands](#)
Tobias Otto, TU Delft, H.W.J. Russchenberg
[short abstract](#) [extended abstract](#)

- 31 QPE Improving the Accuracy of Time-cumulated
Radar-based Rainfall Estimates in the Event of a Flood
Kurtulus Ozturk, Turkish State Meteorological Service, Firat Bestepe, Mehmet Zeybek
[short abstract](#) [extended abstract](#)
- 32 QPE Korean national QPE technique development: Analysis of current QPE results and future plans
Jong Seo Park, Radar data analysis Division, Weather radar center, Korea Meteorological
Administration, Hyang Suk, Park, Joo Wan Cha, Mi-Kyung Suk
[short abstract](#)
- 33 QPE Establishment of probabilistic quantitative precipitation estimates in the Cévennes region, France
Savina Partheni, LTHE, Guy Delrieu
[short abstract](#)
- 34 QPE Development of the NASA Wallops Precipitation Science Research Facility
Walt Petersen, NASA Wallops Flight Facility, A. H. Hou
[short abstract](#)
- 35 QPE - Combining radar and rain gauges rainfall estimates using conditional merging: a case study
Alberto Pettazzi, MeteoGalicia, Santiago Salsón Casado
[short abstract](#) [extended abstract](#)
- 36 QPE Modified conditional merging, test and applications of a method for combining radar and raingauge
data
Flavio Pignone, CIMA Research Foundation, **Nicola Rebora**, Francesco Silvestro
[short abstract](#)
- 37 QPE Correction of Radar QPE Errors for Non-Uniform VPRs in Mesoscale Convective Systems Using
TRMM Observations
Youcun Qi, National Severe Storms Laboratory (NOAA/NSSL), USA, Jian Zhang, Yang Hong
[short abstract](#) [extended abstract](#)
- 38 QPE Comparison of data merging algorithms for improving QPE for Civil Protection purposes in Italy
Nicola Rebora, CIMA Research Foundation, Gianfranco Vulpiani, Flavio Pignone, Francesco
Silvestro
[short abstract](#)
- 39 QPE A test bed for verification of a methodology to correct the effects of range dependent errors on
radar estimates
Stefano Sebastianelli, Dipartimento di Ingegneria Civile, Edile e Ambientale, Sapienza Università di
Roma, Rome, Fabio Russo, Elisa Adirosi, Francesco Napolitano, **Luca Baldini**
[short abstract](#) [extended abstract](#)
- 40 QPE Rain heterogeneity studies and specific Z-R relationships determination with x-band and k-band
radars to improve rain rate retrieval over urban basins.
Joël Van Baelen, Laboratoire de Météorologie Physique (LaMP, CNRS / Université Blaise Pascal
Clermont Ferrand II), Frédéric Tridon, Guillaume Mioche, Yves Pointin
[short abstract](#)
- 41 QPE Scaling properties of rainfall in space and time and their impact on rain rate estimation from
weather radar
Sébastien Verrier, Université de Versailles Saint-Quentin-en-Yvelines, CNRS-INSU, LATMOS,
Laurent Barthes, Cécile Mallet
[short abstract](#) [extended abstract](#)
- 42 QPE Recent developments on precipitation analysis at Italian Met. Service
Antonio Vocino, CNMCA, Italian Air-Force National Meteorological Centre, Pratica di Mare
(Rome, Italy), Marco Petracca
[short abstract](#)
- 44 QPE Towards a 10-year Climatology of Radar-based Precipitation Analyses
Tanja Winterrath, Deutscher Wetterdienst, Elmar Weigl, Mario Hafer, Andreas Becker
[short abstract](#)
- 45 QPE The Error Structure of the Radar Reflectivity and the Correction of the Range Dependent Error
Jungsoo Yoon, Korea Univ, Jungh Kim, Changhyun Jun, Chulsang Yoo
[short abstract](#) [extended abstract](#)
- 46 QPE A real-time algorithm for merging radar QPEs with rain gauge and orographic precipitation
climatology
Jian Zhang, National Severe Storms Laboratory (NOAA/NSSL), **Youcun Qi**, Kenneth Howard
[short abstract](#) [extended abstract](#)

DATA QUALITY (DQ)

- 47 DQ [An operational radar monitoring tool](#)
Hans Beekhuis, KNMI, **Hidde Leijnse**
[short abstract](#) [extended abstract](#)
- 48 DQ [Precipitation and Attenuation Estimates from a High Resolution Weather Radar Network \(PATTERN\) - Algorithms for the removal of clutter in a network environment of low-cost X-band radars](#)
Marco Clemens, Meteorological Institute, University of Hamburg, Katharina Lengfeld, Nicole Feiertag, Felix Ament
[short abstract](#)
- 49 DQ [Reducing weather radar measurement uncertainty with the use of digital data filtering](#)
Ioannis Daliakopoulos, Technical University of Crete, **Ioannis K. Tsanis**
[short abstract](#)
- 50 DQ [A fast marching method approach to identify sea clutter in weather radar data](#)
Christoffer A. Elo, The Norwegian Meteorological Institute
[short abstract](#)
- 51 DQ [Adaptive clutter filtering using statistical radar data and atmospheric propagation conditions](#)
Iñigo Hernáez, Adasa Sistemas, Environmental Quality Division, María de las Mercedes Maruri, Javier López Azcona
[short abstract](#) [extended abstract](#)
- 52 DQ [Hints for laying out quality insurance plan for weather radar data](#)
Guy Jacquet, RHEA, Groupe KISTERS, Alain Kapfer, Abdellatif Djerboua
[short abstract](#)
- 53 DQ [Toward a physically-based identification of Vertical Profiles of Reflectivity from Volume Scan Radar Data](#)
Pierre-Emmanuel Kirstetter, University of Oklahoma and NOAA/National Severe Storms Laboratory , H. Andrieu, B. Boudevillain, G. Delrieu
[short abstract](#) [extended abstract](#)
- 54 DQ [An Objective Method of Creating a Clutter Bypass Map](#)
Valliappa Lakshmanan, University of Oklahoma
[short abstract](#)
- 55 DQ [Image Processing of Weather Radar Reflectivity Data: Should It be Done in Z or dBZ?](#)
Valliappa Lakshmanan, University of Oklahoma
[short abstract](#)
- 56 DQ [Wet Radome Attenuation Mitigation Method Using Ground Clutter Targets](#)
Tuomo Lauri, Finnish Meteorological Insitute, Mikko Kurri
[short abstract](#)
- 57 DQ [A Bayesian Algorithm for Tangential Deconvolution of Weather Radar Images](#)
Jussi Leinonen, Finnish Meteorological Institute, V. Chandrasekar, D. Moisseev
[short abstract](#) [extended abstract](#)
- 58 DQ [Anomalous propagation: Examination of ducting conditions and anaprop events in SW-Germany](#)
Malte Neuper, Karlsruhe Institut of Technology (KIT) -- Institute for Meteorology and Climate Research, Jan Handwerker
[short abstract](#)
- 59 DQ [Removal of geometrical non-meteorological radar echoes](#)
Katarzyna Osrodka, Institute of Meteorology and Water Management, Jan Szturc, Anna Jurczyk
[short abstract](#)
- 61 DQ [Rack - a program for anomaly detection, product generation, and compositing](#)
Markus Peura, Finnish Meteorological Institute
[short abstract](#) [extended abstract](#)
- 62 DQ [wradlib - An Open Source Library for Weather Radar Data Processing](#)
Thomas Pfaff, University of Stuttgart, Maik Heistermann, Stephan Jacobi
[short abstract](#) [extended abstract](#)

- 63 DQ [Characterization tools for estimate radar signals with partial obstructions](#)
Juan Antonio Romo, *University of Basque Country, Mercedes Maruri Machado, Ivan Iglesias, Sabina Ustamujic.*
[short abstract](#) [extended abstract](#)
- 64 DQ [Use of a radar quality index to mitigate the effects of attenuation at C-band in the UK composite](#)
Caroline Sandford, *UK Met Office, Nicolas Gaussiat*
[short abstract](#) [extended abstract](#)
- 65 DQ [Estimation of Attenuation in a Low Melting Layer at 5.6 GHz for Unrimed and Rimed Snow](#)
Annakaisa von Lerber, *Aalto University, D. Moisseev, J. Leinonen and J. Koistinen, M. Hallikainen*
[short abstract](#) [extended abstract](#)
- 66 DQ [A new dynamic approach for the detection and removal of artefacts in radar reflectivity observations](#)
William Winter, *Met Office, Nicolas Gaussiat*
[short abstract](#)

Microphysics (MIC)

- 67 MIC [Impact of seasonal variation of raindrop size distribution \(DSD\) on DSD retrieval methods based on polarimetric radar measurements](#)
Jyothi K Amar, *ISTRAC, ISRO, T. Narayana Rao, S. Vijaya Bhaskara Rao*
[short abstract](#) [extended abstract](#)
- 68 MIC [Polarimetric radar signatures in the ice region of stratiform systems and surface precipitation](#)
Renzo Bechini, Colorado State University, Fort Collins CO 80523, USA, 2) Arpa Piemonte, Sistemi Previsionali, Torino, Italy, V. Chandrasekar, L. Baldini
[short abstract](#)
- 69 MIC [New Z-R relationships derived from raindrop size distribution data provided by laser didrometers](#)
Sorin Burcea, *National Meteorological Administration*
[short abstract](#)
- 70 MIC [Giant raindrops from sub-tropical convective precipitation system: a case study](#)
Wei-Yu Chang, *ASP, EOL, NCAR*
[short abstract](#) [extended abstract](#)
- 71 MIC [Raindrop Size Distribution Retrievals with VHF Wind Profilers](#)
Bronwyn Dolman, ATRAD Pty Ltd, Peter May
[short abstract](#)
- 72 MIC [On the significance of measured raindrop size distributions](#)
Jan Handwerker, *Karlsruhe Institute of Technology*
[short abstract](#)
- 73 MIC [Polarization signatures from simultaneous transmission of horizontal and vertical polarization radar data in ice crystals](#)
John Hubbert, *National Center for Atmospheric Research (NCAR)*
[short abstract](#) [extended abstract](#)
- 75 MIC [Comparison of polarimetric radar signatures in hailstorms simultaneously observed by C-band and S-band radars](#)
Rudolf Kaltenboeck, *Austrocontrol, Alexander Ryzhkov*
[short abstract](#) [extended abstract](#)
- 76 MIC [Validation of Hydrometeor Classification Method for X-band Polarimetric Radars using In Situ Observational Data of Hydrometeor Videosonde](#)
Takeharu Kouketsu, *Hydrospheric Atmospheric Research Center, Nagoya Univerty, Hiroshi Uyeda, Mariko Oue, Tadayasu Ohigashi, Taro Shinoda, Haruya Minda, Kazahisa Tsuboki and Eichi Nakakita*
[short abstract](#) [extended abstract](#)
- 77 MIC [C-band dual-polarization radar and microwave radiometer observations of winter precipitation during LPVEx](#)
Susanna Lautaportti, *University of Helsinki, Dmitri Moisseev, Pablo Saavedra, Alessandro Battaglia, V. Chandrasekar*
[short abstract](#) [extended abstract](#)

- 78 MIC [Aspect ratios and flutter angles of ice cloud particles retrieved from polarimetric radar data](#)
Valery Melnikov, *University of Oklahoma*
[short abstract](#) [extended abstract](#)
- 79 MIC [Differential phase upon scattering by Rayleigh particles](#)
Andrei Melnikov, *PrecMach Inc, Vladimir Shabanov*
[short abstract](#) [extended abstract](#)
- 80 MIC [Snow algorithm for dual polarized X-band radar](#)
Emmanuel Moreau, *NOVIMET, E. Le Bouar, J. Testud, P. Tabary, S. Westrelin, P. Bernard, L. Merindol*
[short abstract](#)
- 81 MIC [C-band dual-polarization weather radar hail signatures observed in South Finland.](#)
Ljubov Nevvonen, *Finnish Meteorological Institute, D. Moiseev, V. Chandrasekar, H. Pohjola*
[short abstract](#) [extended abstract](#)
- 82 MIC [A new microphysical characterization of complex snowflakes and mixed-phased particles scattering properties for improving microwave radar retrievals](#)
Davide Ori, *Alma Mater Studiorum - Università di Bologna, Maestri Tiziano, Rizzi Rolando, Montopoli Mario, Cimini Nico, Marzano Frank Silvio*
[short abstract](#) [extended abstract](#)
- 84 MIC [Estimation of light precipitation parameters by combining observation from C-band dual-polarized radar, K-band radar and the passive microwave radiometer ADMIRARI during the LPVEx campaign](#)
Pablo Saavedra Garfias, *Meteorological Institut, University of Bonn, Luca Baldini, Nicolleta Roberto, Alessandro Battaglia, Dmitri Moiseev, Ali Tokay, Clemens Simmer*
[short abstract](#)
- 85 MIC [Bayesian estimation of bulk microphysical parameters of rain using dual polarized Doppler weather radar](#)
Senaka Samarasekera, *University of Melbourne, Mark Moreland, William Moran, Peter Farrell, Peter May, Guan Wen, Xuezhi Wang, Doug Gray, Marian Viola*
[short abstract](#)
- 86 MIC [X-band radar technology and multifractal drop size distributions](#)
Daniel Schertzer, *Université Paris-Est, Ecole des Ponts ParisTech, Leesu, Ioulia Tchiguirinskaia, Schaun Lovejoy*
[short abstract](#)
- 87 MIC [Modeling of X-band radar backscatter properties of snowfall using data from a 2-D video disdrometer](#)
Marc Schneebeli, *École Polytechnique Fédérale de Lausanne (EPFL), Environmental Remote Sensing Laboratory (LTE), Lausanne, Alexis Berne*
[short abstract](#)
- 88 MIC [Studies of the spatial variability of alpine snowfall using an X-band polarimetric radar](#)
Danny Scipion, *École Polytechnique Fédérale de Lausanne (EPFL) – Environmental Remote Sensing Laboratory (LTE), Lausanne, Rebecca Mott, Michael Lehning, and Alexis Berne*
[short abstract](#) [extended abstract](#)
- 89 MIC [Characterization of supercooled and mixed phase clouds using airborne dual-frequency radar and G-band radiometer](#)
Mengistu Wolde, *National Research Council of Canada, Dave Hudak and Andrew Pazmany*
[short abstract](#) [extended abstract](#)

Nowcasting (NOW)

- 90 NOW [Predictability assessment of nowcasts in high-impact heavy precipitation events](#)
Joan Bech, *Dep. Astronomy and Meteorology. University of Barcelona, Marc Berenguer*
[short abstract](#) [extended abstract](#)
- 91 NOW [The correlation between the Three Body Scatter Signature and hail reports in SE Romania](#)
Aurora Bell, *National Meteorological Administration, Daniel Carbutaru, Bogdan Antonescu, Sorin Burcea*
[short abstract](#)

- 92 NOW Use of C-band radars in nowcast applications at the German Weather Service (DWD)
Tim Böhme, *Deutscher Wetterdienst*
[short abstract](#) [extended abstract](#)
- 93 NOW Real-time weather radar information in support of risk-management: the example of a gas pipeline in the Swiss Alps
Lorenzo Clementi, *MeteoSwiss*, *Marco Gabella*
[short abstract](#)
- 94 NOW NIMR X-band dual polarization radar data display and analysis system
Sol-Ip Heo, *National Institute of Meteorological Research/KMA*, *Seon-Yong Lee*, *Kyung-Yeub Nam*, and *Young-Jean Choi*
[short abstract](#)
- 95 NOW Improving a blending technique by giving more importance to the growth and decay of the NWP models
Oliver Hernández, *Hydrometeorological Innovative Solutions SL*, *Marc Berenguer*, *Daniel Sempere-Torres*, *Rafael Sanchez-Diezma*
[short abstract](#)
- 96 NOW Model for object-oriented nowcasting of convective cells based on multi-source data (SCENE)
Anna Jurczyk, *Institute of Meteorology and Water Management*, *Jan Szturc*, *Katarzyna Ośródk*
[short abstract](#)
- 97 NOW Preliminary results of use of INCA system in the Czech Hydrometeorological Institute
Hana Kyznarova, *Czech Hydrometeorological Institute*, *Prague*, *Milan Salek*, *Petr Novak*
[short abstract](#) [extended abstract](#)
- 98 NOW Detecting Convective Initiation using Radar Images
Valliappa Lakshmanan, *University of Oklahoma*, *John S. Kain*
[short abstract](#)
- 99 NOW A Blending Approach for Radar Echo Extrapolation Using TREC Vectors and Model-Predicted Winds
Qiaoqian Liang, *Guangdong Meteorological Observatory*, *Yerong Feng*, *Wenjian Deng*
[short abstract](#)
- 100 NOW Quantitative expression of uncertainty in nowcasting heavy convective precipitation in Central Europe by extrapolation methods
Jan Mejsnar, *Institute of Atmospheric Physics*, *AS*, *Z. Sokol*, *P. Pesice*
[short abstract](#) [extended abstract](#)
- 101 NOW The operational platform for rainfall monitoring and forecasting X-TREM
Guillaume Mioche, *Laboratoire de Météorologie Physique*, *Joël van Baelen*, *Emmanuel Buisson*
[short abstract](#) [extended abstract](#)
- 102 NOW Comparing the characteristics of the STEPS nowcast ensemble to short-range deterministic NWP
Marion Mittermaier, *Met Office*, *Clive Pierce*
[short abstract](#) [extended abstract](#)
- 103 NOW Operational use of a dual-polarization weather radar in Finland.
Ljubov Nevvonen, *Finnish Meteorological Institute*, *E. Saltikoff*, *T. Erkkilä*
[short abstract](#)
- 104 NOW Combining Satellite, Radar and NWP data for severe convection Nowcasting over the Alpine area
Luca Nisi, *MeteoSwiss*, *Paolo Ambrosetti*, *Lorenzo Clementi*, *Stefano Zanini*
[short abstract](#) [extended abstract](#)
- 105 NOW Improvement and verification of the operational nowcasting algorithm at ARPA-SIMC
Virginia Poli, *ARPA Emilia-Romagna*, *Servizio IdroMeteoClima*, *Pier Paolo Alberoni*
[short abstract](#) [extended abstract](#)
- 106 NOW The nowcasting system INCA-BE in Belgium and its performance in different synoptic situations
Maarten Reyniers, *Royal Meteorological Institute of Belgium*, **Laurent Delobbe**
[short abstract](#) [extended abstract](#)
- 107 NOW Radar and Nowcasting in flood prevention: Return of experience in November in France
Alix Roumagnac, *Predict Services*, *Karine Moreau*
[short abstract](#)
- 109 NOW Hail warning and hail climatology in DWD
Joerg Selmann, *DWD*, *Hohenpeissenberg Observatory*, *P. Lang*, *M. Frech*
[short abstract](#)

- 110 NOW [Testing radar-based hail detection criteria](#)
Katerina Skripnikova, *Institute of Atmospheric Physics ASCR, Prague*
[short abstract](#) [extended abstract](#)
- 111 NOW [Radar- and satellite derived descriptors as proxies of the precipitation process](#)
Kathrin Wapler, *German Weather Service (DWD), Offenbach, Silke Trömel, Hartwig Deneke, Malte Diederich, Ákos Horváth, Fabian Senf, Clemens Simmer, Jürgen Lorenz Simon*
[short abstract](#)
- 112 NOW [The DWD Quantitative Precipitation Nowcasting Systems – A Verification Study for Selected Flood Events](#)
Tanja Winterrath, *Deutscher Wetterdienst, Thomas Reich, Wolfgang Rosenow, Klaus Stephan*
[short abstract](#) [extended abstract](#)

Spaceborne Radar (SAT)

- 113 SAT [Analysis of vertical profiles in West-African Precipitating systems based on TRMM PR and ground based radar.](#)
Matias Alcoba, *GET, Marielle Gosset*
[short abstract](#)
- 114 SAT [Sensitivity of Doppler velocity measurements for EarthCARE-like system parameters](#)
Tomasz Augustynek, *Earth Observation Science, Department of Physics and Astronomy, University of Leicester, Leicester, UK, Ousmane Sy, Alessandro Battaglia, Simone Tanelli, Pavlos Kollias*
[short abstract](#)
- 115 SAT [On the opportunistic use of geostationary satellite signals to estimate rain rate in the purpose of radar calibration](#)
Laurent Barthes, *UVSQ - LATMOS, Cécile Mallet*
[short abstract](#) [extended abstract](#)
- 116 SAT [Use of TRMM satellite data for validation of weather radar](#)
Douglas Ferreira, *Sistema de Proteção da Amazônia (SIPAM), Vanda Maria Sales de Andrade, Renata Silva de Loureiro, Jaci Maria Bilhalva Saraiva*
[short abstract](#)
- 117 SAT [Notional studies for future geostationary Doppler radars](#)
Neil Humpage, *Earth Observation Science, Department of Physics and Astronomy, University of Leicester, Alessandro Battaglia, Simone Tanelli, Pavlos Kollias*
[short abstract](#)
- 118 SAT [Marine Stratocumulus Clouds Detection Using Satellite Borne Radars: Performance of Different Radar Configurations](#)
Pavlos Kollias, *McGill University, Simone Tanelli, Alessandro Battaglia, Edward Luke and Ousmane Sy*
[short abstract](#)
- 119 SAT [W-band space and C-band ground radars analysis for investigating cloud microphysical characteristics](#)
Anna Cinzia Marra, *Institute of Atmospheric Sciences and Climate (ISAC) of the Italian National Research Council (CNR), UOS Lecce, Gian Paolo Marra, Agata Moscatello, Annarita Turnone, Indira Lavanya Althada and Franco Prodi*
[short abstract](#) [extended abstract](#)
- 120 SAT [Precipitation signature on X-band spaceborne synthetic aperture radar imagery: interpretation and analysis](#)
Saverio Mori, *DIET - Sapienza University of Rome, L. Pulvirenti, M. Chini, M. Montopoli, N. Pierdicca, J.A. Weinman, F.S. Marzano*
[short abstract](#) [extended abstract](#)
- 121 SAT [Sampling uncertainties of precipitation estimates from satellites using a climatological radar rainfall data set](#)
Aart Overeem, *Hydrology and Quantitative Water Management Group, Wageningen University, Hidde Leijne, Remko Uijlenhoet*
[short abstract](#)

122 SAT Simultaneous observations of rain cells by cosmo skymed constellation and weather radars using difference scanning strategy
Nicoletta Roberto, Istituto di Scienze dell'Atmosfera e del Clima, CNR, Baldini L., Gorgucci E., Chandrasekar V.
[short abstract](#) [extended abstract](#)

123 SAT Spatial variability of raindrop size distributions during MC3E
Jan-Bernd Schröer, Meteorological Institute, University of Bonn -/ Bonn, Ali Tokay, Walter A. Petersen, David B. Wolff, Patrick Gatlin, Matthew Wingo, and Lawrence D. Carey
[short abstract](#)

Air Traffic Management (ATM)

124 ATM Modality of using meteorological radar data in air traffic management
Alexandru Hozoc, Romanian Air Traffic Services - ROMATSA, Catalin Bondor
[short abstract](#) [extended abstract](#)

125 ATM Airborne Radar Retrieved Three Dimensional Wind Fields for Turbulence Detection
Fadela Kabeche, Météo France (formerly Ph.D student within Thales), Yvon Lemaître, Stéphane Kemkemian, Jean-Paul Artis
[short abstract](#) [extended abstract](#)

126 ATM Image processing for weather radar data correction for aeronautical meteorology.
Rudolf Kaltenboeck, Austrocontrol, Croonen Gerardus, Ganster Harald], Gruber Manfred , Hennermann Karin , Kerschbaum Markus, Nowak Christoph, Mayer Heinz, Mayer Stefan, Uray Martina
[short abstract](#)

127 ATM Weather radar data quality enhancement in aeronautical applications through polarimetric measurements
Alexander Lialushkin, Institute of Radar Meteorology (IRAM), Tatiana Bazlova, Nikolay Bocharnikov, Alexander Solonin
[short abstract](#) [extended abstract](#)

128 ATM Simulations of a Doppler Radar for monitoring wake vortices in rainy weather
Zhongxun LIU, ISAE, University of Toulouse, Nicolas Jeannin, François Vincent, Xuesong Wang
[short abstract](#)

129 ATM Weather extractors for ATC – radars
The GAMIC GWSP Doppler extractor, practical experiences, limits and future
Martin Malkomes, GAMIC, Dietmar Veerkamp, Matthias Toussaint, Karl-Josef Müller
[short abstract](#) [extended abstract](#)

130 ATM Operational use of automated weather radar systems “MeteoCell” with Air Traffic Management systems
Vasily Olenov, Institute of Radar Meteorology (IRAM), Tatiana Bazlova, Nikolay Bocharnikov, Alexander Solonin
[short abstract](#)

131 ATM MEDUSA, a Meteorological Decision Support System for Aviation
Rafael Sanchez-Diezma, Hydrometeorological Innovative Solutions, Thomas Gerz, Martin Hagen, Caroline Foster, Felix Keis, Álvaro Rodríguez, Óliver Hernández, Shinju Park
[short abstract](#)

132 ATM Towards the Detection of Aircraft Icing Conditions Using Operational Dual-polarimetric Radar
Ellis Scott, NCAR/EOL, David Serke, John Hubbert, David Albo, Andrew Weekly, Marcia Politovich, Andrew Gaydos, Daniel Adriaansen, Earle R. Williams, David J. Smalley, and Michael F. Donovan
[short abstract](#) [extended abstract](#)

Cloud Radars (CR)

133 CR MIRA-36 Cloud Radar Observation of Fog
Matthias Bauer-Pfundstein, Metek GmbH, Gerhard Peters
[short abstract](#) [extended abstract](#)

134 CR Medium power cloud radar
Matthias Bauer-Pfundstein, Metek GmbH, Gerhard Peters
[short abstract](#)

- 135 CR [Calibration of ARM Cloud Radars](#)
Nitin Bharadwaj, Pacific Northwest National Laboratory, Kevin Widener, Jim Mead, Brian Simakauskas
[short abstract](#)
- 136 CR [Comparisons of measured cloud reflectivity at 95 GHz with forward modeled reflectivity using in-situ particle size distributions](#)
Emmanuel Fontaine, Laboratoire de Météorologie Physique, Université Blaise Pascal, Clermont-Ferrand, J. Delanoe, A. Schwarzenboeck, R. Dupuy, N. Viltard, A. Protat, C. Duroure, W. Wobrock and C. Goubeyre
[short abstract](#) [extended abstract](#)
- 137 CR [Beam-pointing angle calibration of the Wyoming Cloud Radar on the Wyoming King Air aircraft](#)
Samuel Haimov, University of Wyoming, Alfred Rodi
[short abstract](#) [extended abstract](#)
- 138 CR [Hole-punch clouds over Helsinki, Finland](#)
Ewan O'Connor, University of Reading, UK and FMI, Finland, Hirsikko, A., P. Jokinen, D. Moisseev and J. Leinonen
[short abstract](#)
- 140 CR [Improved signal processing of the ARM program 915 MHz wind profilers](#)
Frederic Tridon, Earth Observation Sciences, Department of Physics and Astronomy, University of Leicester, Leicester, Alessandro Battaglia, Pavlos Kollias, Edward P. Luke
[short abstract](#)
- 141 CR [Development and Observation of the Ku-band Broadband Radar \(BBR\) Network](#)
Tomoo Ushio, Osaka University
[short abstract](#) [extended abstract](#)
- 142 CR [Coherent on Receiving and Processing of Non-coherent 35-GHz Radar for Cloud and Precipitation](#)
Zhi-Huo XU, Xiamen Meteorological Administration, Xue-Ming Zhou, Zhao Shi
[short abstract](#)

POSTER PROGRAMME GROUP 2

Wednesday 27 June & Thursday 28 June, 13:30 – 15:00

Location: marquee

Hydrological Studies / Signal Processing / Numerical Weather Prediction / Networking - Radar Case Studies / Non Meteorological Use of Radars

Hydrological Studies (HS)

- 145 HS [Hydrological analysis of the extreme precipitation event of June 2011 in the Parma basin, Italy](#)
Pier Paolo Alberoni, ARPA - SIMC Emilia-Romagna, A. Agnelli, R. Amorati, S. Pecora, G. Ricciardi, F. Tonelli, E. Zenoni
[short abstract](#) [extended abstract](#)
- 147 HS [The use of radar data in operational hydrology](#)
Lucie Brezková, Czech Hydrometeorological Institute, Martin Jonov, Petr Janál, Miloš Starý
[short abstract](#)
- 148 HS [Forecasting flash flood impacts utilizing anthropogenic exposure factors](#)
Martin Calianno, LTHE (University of Grenoble, CNRS), **JJ. Gourley**, I. Ruin
[short abstract](#) [extended abstract](#)
- 149 HS [The development and use of a comprehensive US-wide flash flood database for evaluating forecasting tools](#)
Race Clark, University of Oklahoma and NOAA/National Severe Storms Laboratory, Jonathan J. Gourley, Zachary Flamig
[short abstract](#)
- 150 HS [Influence of rainfall spatial variability on rainfall runoff modelling: case study on a peri-urban catchment](#)
Isabelle Emmanuel, Ifsttar, Herve Andrieu, Bernard Flahaut
[short abstract](#) [extended abstract](#)

- 151 HS Flash flood modelling for ungauged catchments
Pierre-André Garambois, IMFT, *Hélène Roux - Denis Dartus*
[short abstract](#)
- 152 HS Six-year continuous hydrological simulation of water resources using C-band radar QPE data at Skjern river catchment, Denmark
Xin He, Geological Survey of Denmark and Greenland, *Flemming Vejen, Jens Christian Refsgaard, Karsten H. Jensen*
[short abstract](#)
- 153 HS A first step in the integration of radar information on a operational tool for monitorization and surveillance in potential flash flood events.
Roberto Hernandez, Euskalmet / Tecnalia - Meteo Unit, J. Moreno, K, Otxoa de Alda, M. Maruri, J. Egaña, S. Gaztelumendi
[short abstract](#) [extended abstract](#)
- 154 HS The use of artificial intelligence methods for flash flood forecasting
Petr Janál, Czech Hydrometeorological Institute, *Miloš Starý*
[short abstract](#)
- 155 HS Development of a flash flood warning system dedicated to road network monitoring : the prediflood project
Jean Philippe Naulin (IFSTTAR), Eric Gaume, Olivier Payrastre, Isabelle Emmanuel
[short abstract](#)
- 156 HS Interpretation of flash flood forecasts from the perspective of end users
Martin Jonov, Czech Hydrometeorological Institute, *Lucie Brezková, Petr Janál*
[short abstract](#)
- 157 HS Use of radar QPE as an input to rainfall–runoff model: the case of the Rhone River (France)
Sébastien Legrand, Compagnie Nationale du Rhône, *Etienne Dommange, Benjamin Graff, Guillaume Bontron*
[short abstract](#) [extended abstract](#)
- 158 HS Using the radar rainfall error for probabilistic forecasting
Sara Liguori, University of Bristol, Miguel Rico-Ramirez
[short abstract](#) [extended abstract](#)
- 159 HS A simplified radar-based EWS for urban flood warning
Xavier Llor, HYDS, *Rafael Sánchez-Diezma, Álvaro Rodríguez, Miquel Ferrer, Marc Berenguer, Daniel Sempere-Torres*
[short abstract](#)
- 160 HS Dam and basin management through an integrated platform
Xavier Llor, HYDS, *Rafael Sánchez-Diezma, David Sancho, Miquel Ferrer, Olver Hernández, Marc Berenguer, Daniel Sempere-Torres*
[short abstract](#)
- 161 HS Can we improve streamflow simulation by using higher resolution rainfall information?
Florent Lobligeois, IRSTEA, *Vazken Andréassian, Charles Perrin, Cécile Loumagne*
[short abstract](#) [extended abstract](#)
- 162 HS RAINPOL a web platform for hydro meteorological monitoring from an X-band dual polarization radar
Emmanuel Moreau, NOVIMET, *J. Testud, D. Organde, P. Arnaud, P. Javelle and M. Fiquet*
[short abstract](#)
- 163 HS Using QPE in Hydrological Modeling in Middle Mountain Area ?
Laetitia Moulin, EDF-DTG, *Victor Baron, Pierre Bernard, Rémy Garçon Thibault Mathevet*
[short abstract](#) [extended abstract](#)
- 164 HS Flood Runoff Simulation Using Grid-based Radar Rainfall and Vflo Model
Hui-seong Noh, Inha University, *Byung-sik Kim, Na-rae Kang, Hung-soo Kim*
[short abstract](#) [extended abstract](#)
- 165 HS Integrated hydro-meteorological forecasts application in an operational environment
Agnes Sakal, University of Technology Sydney, Alan Seed, James E Ball
[short abstract](#)
- 166 HS Inputs of X-band radars to high resolution urban water management
Daniel Schertzer, University Paris-Est, Ecole des Ponts ParisTech, *Leesu, F. Blanchet, I. Tchiguirinskaia*
[short abstract](#)

- 167 HS Statistical downscaling of CLM precipitation data with an analogue method using radar data of radar Essen (DWD)
Alrun Tessendorf, hydro & meteo GmbH & Co. KG, Thomas Einfalt, Markus Quimbach
[short abstract](#)
- 168 HS A new warning service for heavy precipitation risk-management
Renaud Tzanos, Météo-France - DPrévi/PI, Pascal Brovelli
[short abstract](#)
- 169 HS Spatial estimation of rain kinetic energy from radar reflectivity factor and/or rain rate based on a scaling formulation of DSD
Nan YU, LTHE (University of Grenoble, CNRS, IRD), **Brice Boudevillain**, Guy Delrieu, Michel Estèves, Sahar Hachani, Remko Uijlenhoet
[short abstract](#) [extended abstract](#)

Signal Processing (SP)

- 170 SP Efficiency of Atmospheric Radar Signal Processing Using Eigen Value Decomposition Method
VK Anandan, ISTRAC, Indian Space Research Organisation, Bangalore, VN Sureshbabu
[short abstract](#) [extended abstract](#)
- 171 SP An Engineering Illustration of the dual polarization upgrade for the WSR-88D
Mrinal Balaji, Baron Services, Inc, **John R. Ellis**, William H. Walker, Darrin R. Cartwright, James H. Lee, Mrinal S. Balaji, James H. Romines
[short abstract](#) [extended abstract](#)
- 172 SP A Mobile Doppler Dual-Polarisation X-band Radar for Microphysics and Hydrometeorological Research
Lindsay Bennett, National Centre for Atmospheric Science, School of Earth and Environment, University of Leeds, Christopher G. Collier and Alan M. Blyth
[short abstract](#)
- 173 SP X band addition to the CSU-CHILL radar facility
V.Chandra Chandrasekar, Colorado State University, V. N. Bringi, S. A. Rutledge, Dave Brunkow, Francesc Junyent, Pat Kennedy, Jim George and Robert Bowie
[short abstract](#) [extended abstract](#)
- 174 SP Evaluation of X-band Radar Technologies within Opera 3 project
Roberto Cremonini, Arpa Piemonte, P. Tabary, J. Sugier, M. Frech, P.P. Alberoni, L. Baldini, A. Huuskonen, A. Vocino
[short abstract](#) [extended abstract](#)
- 176 SP Zenith/Nadir Pointing Cloud Radars: Linear or Circular Polarization ?
Michele Galletti, Brookhaven National Laboratory, Dong Huang, Pavlos Kollias
[short abstract](#)
- 177 SP Degree of Polarization at Simultaneous Transmission: Applications for Scatterers with Azimuthal Symmetry
Michele Galletti, Brookhaven National Laboratory
[short abstract](#)
- 178 SP X-band radar in the gap between K- and C-Band
Jan Handwerker, Karlsruhe Institute of Technology
[short abstract](#)
- 179 SP Control of the polarization of a hybrid polarimetric weather radar to reduce Zdr bias
Markus Hille, Selex Systems Integration GmbH, Ronald Hannesen, Frank Gekat
[short abstract](#)
- 180 SP Assessment of Censoring Using Coherency Based Detectors on Dual-Polarized Weather Radar
Igor Ivic, University of Oklahoma/National Severe Storms Laboratory, Reino Keranen, Dusan Zrnica, V. Chandrasekar
[short abstract](#) [extended abstract](#)
- 182 SP Use of weather radar data for dimensioning Fade Mitigation Techniques in wireless telecommunication networks
Nicolas Jeannin, ONERA, Laurent Castanet, Florent Christophe, Frédéric Lacoste
[short abstract](#)

- 183 SP [Evaluation of the Enhanced Detection Capability of the Dual-Polarization Weather Radar](#)
Reino Keränen, Vaisala Oyj, Jason Selzler, V. Chandrasekar
[short abstract](#) [extended abstract](#)
- 184 SP [A new approach to Spaced Antenna Drift Technique to derive the, atmospheric winds](#)
Shridhar Kumar, ISTRAC, Indian Space Research Organisation, Bangalore, VK Anandan and Toshitaka Tsuda
[short abstract](#) [extended abstract](#)
- 185 SP [Long term monitoring of data quality from an operational S-band dual-polarization radar](#)
Soohyun Kwon, Dept. Astronomy and Atmospheric Sciences, Kyungpook National University, Daegu, Young-A Oh, Gyuwon Lee¹, and Choong-Ke Lee
[short abstract](#)
- 186 SP [The new KNMI clutter mitigation scheme - from pulse-based to post-processing](#)
Hidde Leijnse, Royal Netherlands Meteorological Institute, Hans Beekhuis, Aline Kraai, Rudolf van Westrhenen, and Paul de Valk
[short abstract](#)
- 187 SP [Combined double frequency method for profiling of rain parameters](#)
Anna Linkova, Usikov Institute of Radiophysics and Electronics of National Academy of Sciences of Ukraine, Khlopov G., Voitovych O., Belov Ye., Khomenko S., Rudnev G.
[short abstract](#)
- 188 SP [Modeling of the Doppler spectrum width from profiling radars](#)
Edward Luke, Brookhaven National Laboratory, Christopher Williams, Ming Fang, Pavlos Kollias
[short abstract](#)
- 189 SP [ENIGMA IV and FROG-MURAN - The "state of the art" signal and data processing, Performance and data quality achieved with modern weather radars](#)
Martin Malkomes, GAMIC, Matthias Toussaint, Dietmar Veerkamp
[short abstract](#) [extended abstract](#)
- 190 SP [Measurement of Doppler Radar signature of Wind Turbines at high resolution in distance](#)
Jean-Paul Marcellin, ONERA, Anil Cheraly, Jean-François Petex, Huy-Khang Phan
[short abstract](#) [extended abstract](#)
- 191 SP [Characterization of the differential reflectivity of euskalmet polarimetric weather radar](#)
María de las Mercedes Maruri, Basque Meteorology Agency (EUSKALMET) / TECNALIA - Meteo Unit / UPV-EHU, Juan Antonio Romo, Arkaitz Etxezarreta, Iñigo Hernáez
[short abstract](#) [extended abstract](#)
- 192 SP [Using IQ-Data for the evaluation of Doppler spectra and identification of clutter and anaprop at X band](#)
Kai Mühlbauer, Meteorological Institute of the University of Bonn, Malte Diederich, Silke Trömel, Clemens Simmer
[short abstract](#)
- 193 SP [Micro Rain Radar Noise Estimation](#)
Piet Markmann, Metek GmbH, Gerhard Peters, Max Maahn, Stefan Kneifel
[short abstract](#) [extended abstract](#)
- 194 SP [Dual-polarization spectral filter for radio frequency interference suppression](#)
Laura Rojas, University of Helsinki, Dmitri N. Moiseev, V. Chandrasekar, Jason Selzler, Reino Keränen.
[short abstract](#) [extended abstract](#)
- 195 SP [Post beam steering techniques as a means to extract horizontal winds from Atmospheric radars](#)
VN Sureshbabu, ISTRAC, Indian Space Research Organisation, Bangalore, VK Anandan and Toshitaka Tsuda
[short abstract](#) [extended abstract](#)
- 199 SP [The new real-time measurement capabilities of the profiling TARA radar](#)
Christine Unal, Delft University of Technology, Yann Dufournet, Tobias Otto, Herman Russchenberg
[short abstract](#) [extended abstract](#)
- 200 SP [Automated real-time mitigation of ground clutter contamination for Dual-Polarization Doppler weather radars](#)
David Warde, Cooperative Institute for Mesoscale Meteorological Studies, The University of Oklahoma and NOAA/OAR National Severe Storms Laboratory, Sebastian M. Torres
[short abstract](#)

- 201 SP Precipitation estimate of a heavy rain event using a C-band solid-state polarimetric radar
Hiroshi Yamauchi, Meteorological Research Institute - Japan Meteorological Agency, Ahoro Adachi, Osamu Suzuki, Takahisa Kobayashi
[short abstract](#) [extended abstract](#)
- 202 SP Modeling and Simulation of China New Generation Doppler Weather Radar System
Xue-ming ZHOU, Xiamen Meteorological Administration, **XU Zhi-huo**
[short abstract](#)

Numerical Weather Prediction (NWP)

- 25 NWP An Improve of Polarimetric Radar Rainfall Estimates
Huan Li, Institute of Remote Sensing Applications, Chinese Academy of Sciences & Atmospheric Radar Research Centre, The University of Oklahoma, Yang Hong, Shuai Gao, Zheng Niu
[short abstract](#) [extended abstract](#)
- 203 NWP Impact of Korea Local Radar Processing System (KLRPS) on analysis and very short range forecast
Kwang-deuk Ahn, National Institute of Meteorological Research, Korea Meteorological Administration, Yo-Han Cho, Sung-Hwa Jung, GyuWon Lee and Yong Hee L
[short abstract](#)
- 204 NWP Observation Operator for polarimetric variables
Clotilde Augros, Météo France, Radar Center, Pierre Tabary, Olivier Caumont
[short abstract](#)
- 205 NWP Comparison between weather radar refractivity change observations and mesoscale numerical weather prediction analyses
Olivier Caumont, Météo-France, CNRM-GAME, Anouck Foray, Lucas Besson, Jacques Parent du Châtelet
[short abstract](#)
- 206 NWP The Value of Accuracy and Density of Radar Observation for Data assimilation
Weiguang Chang, McGill University, Isztar Zawadzki
[short abstract](#) [extended abstract](#)
- 207 NWP SAARC STORM Pilot Field Experiment 2011 and Mesoscale Data Assimilation Impacts
Mohan Kumar Das, SAARC Meteorological Research Centre (SMRC), Sujit K. Debsarma and Someshwar Das
[short abstract](#) [extended abstract](#)
- 208 NWP Efficient radar forward operator for data assimilation and model verification (1)
Dorit Epperlein, Karlsruhe Institute of Technology (KIT), Yuefei Zeng, Ulrich Blahak
[short abstract](#) [extended abstract](#)
- 209 NWP A radar-based study to evaluate the capability of high resolution Operational NWP systems for tornado watches issuance
Alexandre Flouttard, Météo-France, Toulouse, Olivier Bousquet, Thibaut Montmerle, Joshua Wuman
[short abstract](#) [extended abstract](#)
- 210 NWP Observation and verification of some 2011 heavy rain events in Western Mediterranean
Ana Genovés, AEMET
[short abstract](#)
- 211 NWP Variational assimilation of radar reflectivity data at the Met Office
Lee Hawkness-Smith, Met Office, Nicolas Gaussiat, Helen Buttery, Cristina Charlton-Perez, Sue Ballard
[short abstract](#) [extended abstract](#)
- 212 NWP Efficient implementation of inverse variance-covariance matrices in variational data assimilation systems
Dominik Jacques, J. S. Marshall Radar Observatory McGill University, Isztar Zawadzki
[short abstract](#) [extended abstract](#)
- 213 NWP Ensemble Kalman filter assimilation of radar reflectivity data: observing system simulation experiments
Bogumi Jakubiak, University of Warsaw, Katarzyna Osródką, Anna Jurczyk, and Jan Szturc
[short abstract](#)

- 214 NWP A very-short range precipitation forecasting using VDRAS and KLAPS for World Expo 2012 Yeosu in Korea
Eun-Hee Kim, National Institute of Meteorological Research, Korea Meteorological Administration, Kwang-Deuk Ahn, Hee-Chun Lee and Yong-Hee Lee
[short abstract](#)
- 216 NWP A comparison of two techniques combining rain-gauge and radar measurements at high resolutions and its application to precipitation forecasts verification
Carole Legorgeu, Laboratoire de Météorologie Physique, UMR 6016 CNRS/UBP, Julien Pergaud, Wolfram Wobrock
[short abstract](#) [extended abstract](#)
- 217 NWP Usefulness of the X-band radar reflectivity data for verification of precipitation events forecasted by numerical weather prediction models
Aleksandra Ewa Kardas, University of Warsaw, ICM, Bartosz Niezgodka, Bogumil Jakubiak
[short abstract](#) [extended abstract](#)
- 215 NWP Impact of Doppler Radial Velocity Data Assimilation on Typhoon Simulation
Pay-Liam Lin, Department of Atmospheric Sciences, National Central UNiversity, Hsin-Hung Lin
[short abstract](#)
- 218 NWP Radar data assimilation using a modular programming approach with the Ensemble Kalman Filter: preliminary results.
Ida Maiello, Centre of Excellence CETEMPS -Department of Physics, University of L'Aquila, L. Delle Monache, G. Romine, E. Picciotti, F.S. Marzano, R. Ferretti
[short abstract](#) [extended abstract](#)
- 219 NWP Assessing the Improvement of Severe Weather Prediction Over Western Africa in WRF by 3DVAR Data Assimilation System using Conventional and Radiance observational Data
Pascal Moudi Igri, University of Yaounde I, Department of Physics, Appolinaire Derbetini Vondou, Francois Mk ankam Kamga
[short abstract](#) [extended abstract](#)
- 220 NWP Validation of Multiple-Doppler Analysis of Convective Clouds Using the ARM Precipitation Radar Network During MC3E
Kirk North, McGill University, Scott Collis, Scott Giangrande and Pavlos Kollias
[short abstract](#)
- 222 NWP Radar-based QPE used for the modeller oriented QPF verification by traditional and spatial techniques
Daniela Rezacova, Institute of Atmospheric Physics ASCR, Prague, Petr Zacharov, Zbynek Sokol
[short abstract](#) [extended abstract](#)
- 223 NWP Long term evaluation of LHN data assimilation of radar derived precipitation rates
Klaus Stephan, German Weather Service
[short abstract](#) [extended abstract](#)
- 224 NWP Assimilation of radial wind information measured by Doppler Radar of DWD
Klaus Stephan, German Weather Service, Christoph Schraff, Ulirisch Blahak, Kathleen Helmert, Karolin Eichler, Daniel Leuenberge
[short abstract](#)
- 225 NWP EnKF assimilation of high-resolution, mobile Doppler radar data of the 4 May 2007 Greensburg, Kansas supercell storm into a numerical cloud model
Robin Tanamachi, Center for Analysis and Prediction of Storms (CAPS), Louis J. Wicker, David C. Dowell, Daniel T. Dawson II, Howard B. Bluestein, Ming Xue
[short abstract](#) [extended abstract](#)
- 226 NWP EnKF assimilation of storm-scale, mobile Doppler radar data into high-resolution analyses of a weakly tornadic supercell
Robin Tanamachi, Center for Analysis and Prediction of Storms (CAPS), Ming Xue, Youngsun Jung, Keith A. Brewster, Michael I. Biggerstaff
[short abstract](#)
- 227 NWP Efficient radar forward operator for data assimilation and model verification (2)
Yuefei Zeng, Institute for Meteorology and Climate Research, Karlsruhe Institute of Technology (KIT), Dorit Epperlein, Ulrich Blahak
[short abstract](#) [extended abstract](#)

- 304 NWP Mediterranean storm forecast in complex orography: investigating microphysical aspects using polarimetric radar data and WRF simulations
Sabrina Gentile, Department of Physics/CETEMPS, University of L'Aquila, L'Aquila, **M. Montopoli**, R. Ferretti, S. Di Fabio, E. Picciotti, G. Vulpiani, F.S. Marzano
[short abstract](#) [extended abstract](#)

NETWORKING (NET)

- 228 NET Improving the quality of polarimetric X-Band radar data using Micro Rain Radar
Hassan Al-Sakka, Météo-France, Direction des Systèmes d'Observation, Jean-Marie Donier, Thierry Douffet, Olivier Garrouste, Stephen Frasier, Jeffrey Beck and Olivier Bousquet
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- 229 NET Wind Turbine Impact Evolution and Beam Blockage Analysis on the Doppler Weather Radar Network of the Meteorological Service of Catalonia
Oriol Argemí, Meteorological Service of Catalonia, A. Belmonte, X. Fabregas, J. Bech, N. Pineda, T. Rigo
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- 230 NET ARM radar facility for climate study
Nitin Bharadwaj, Pacific Northwest National Laboratory, Kevin Widener, Scott Collis, Karen Johnson
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- 231 NET The ARM end-to-end geophysical retrieval system
Scott Collis, Argonne National Laboratory, Scott Giangrande, Kirk North, Nitin Bharadwaj and Pavlos Kollias
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- 232 NET Assessment of precipitation observations by a heterogeneous network of X- and K-band radars
Stephen Frasier, U. Massachusetts, Jeff Beck, Fadela Kabeche, Jordi Figueras i Ventura, Hassan Al-Sakka, Béatrice Fradon, Abdel-Amin Boumahmoud, Olivier Bousquet and Pierre Tabary
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- 233 NET Impact of operational wind farms in the United Kingdom on weather radar products
Dawn Harrison, Met Office
[short abstract](#) [extended abstract](#)
- 234 NET Operational chain of weather radar algorithms and ongoing developments at Deutscher Wetterdienst (DWD)
Kathleen Helmert, Deutscher Wetterdienst, Offenbach, P. Tracksdorf
[short abstract](#)
- 235 NET EUMETNET OPERA: Achievements of OPERA-3 and challenges ahead
Asko Huuskonen, Finnish Meteorological Institute, Laurent Delobbe, Bernard Urban and the OPERA group
[short abstract](#) [extended abstract](#)
- 236 NET History of radar meteorology in the Slovak Republic.
Miriám Jarosova, AMS SHMU
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- 237 NET New generation of dual polarized weather radars in Austria.
Rudolf Kaltenboeck, Austrocontrol
[short abstract](#) [extended abstract](#)
- 238 NET Validation of Composite Polarimetric Parameters and Rainfall Amounts from an X-band Polarimetric Radar Network in the Tokyo Metropolitan Area
D.-S KIM, National Research Institute for Earth Science and Disaster Prevention, **M. Maki**, T. Maesa and S. Tsuchiya
[short abstract](#) [extended abstract](#)
- 239 NET Optimization of scanning strategy for the radar network operated by Korea Meteorological Administration (KMA)
GyuWon Lee, Dept. Astronomy and Atmospheric Sciences, Kyungpook National University, Young-A Oh, Sung-Hwa Jung, Bok-Haeng Heo, and Bongjae Kuk, Kyung-Eak Kim
[short abstract](#)
- 240 NET Considerations for compositing radar data from 3 countries
Guido Lempio, Hydro & Meteo GmbH & Co.KG, Luebeck, Thomas Einfalt, Arnold Lobbrecht
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- 241 NET [Precipitation and Attenuation Estimates from a High Resolution Weather Radar Network \(PATTERN\) – Design of the Experiment](#)
Katharina Lengfeld, Meteorological Institute, University of Hamburg, Marco Clemens, Nicole Feiertag, Felix Ament
[short abstract](#) [extended abstract](#)
- 242 NET [Impact of wind turbines on french weather radar network](#)
Richard Lorandel, Météo France , Jean-Louis Champeaux, Jean.Claude Heinrich, Pierre Tabary
[short abstract](#)
- 243 NET [Optimization of the operation strategy and parameters of the Euskalmet weather radar](#)
María de las Mercedes Maruri, Basque Meteorology Agency (Euskalmet) - TECNALIA, Meteo Unit, Iñigo Hernáez, Santiago Gaztelumendi
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- 244 NET [Radar inter-calibration analysis: potential use for weather radar networks](#)
Mario Montopoli, Univ. of Cambridge, UK and Univ. of L' Aquila Italy (CETEMPS), V. Romaniello, E. Gorgucci, E. Picciotti, L.Baldini and F.S. Marzano
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- 245 NET [Utilization of Exchange of Weather Radar Data in the Czech Hydrometeorological Institute](#)
Petr Novak, Czech Hydrometeorological Institute, Petr Frolík, Lucie Bezková, Hana Kyznarová
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- 246 NET [Exploiting X-band dual-polarization mini-radar network and hydro-meteorological forecast models in Moldova territory during the field campaign of HydroRad project](#)
Errico Picciotti, Himet-Cetemps, **Marzano F.S.**, Cinque G., Montopoli M., Bernardini L., De Sanctis K., Anagnostou E., Anagnostou M., Fessas Y., Volpi A., Telleschi A., Kalogiros J., Cazac V., Pace R.
[short abstract](#) [extended abstract](#)
- 247 NET [Evolution of the UK Radar processing system \(Radarnet\)](#)
Matt Probert, UK Met Office
[short abstract](#)
- 248 NET [Effective Radar Algorithm Software Development at the DWD](#)
Nils Rathmann, Deutscher Wetterdienst, Offenbach, Michael Mott
[short abstract](#) [extended abstract](#)
- 249 NET [3D Radar reflectivity mosaics based on a variational method](#)
Jordi Roca-Sancho, Centre de Recerca Aplicada en Hidrometeorologia, Universitat Politècnica de Catalunya, Barcelona, Marc Berenguer, Daniel Sempere-Torres
[short abstract](#) [extended abstract](#)
- 250 NET [Weather radar network of the Amazon Protection System, Brazil](#)
Ivan Saraiva, Sistema de Proteção da Amazônia, Gustavo Guterres Ribeiro, Mauro Mendonça da Silva
[short abstract](#)
- 251 NET [The wind turbine problem in Germany](#)
Joerg Selmann, DWD, Hohenpeissenberg Observatory, Diesner, C., Stephan, K., Lang, P., Frech, M.
[short abstract](#)
- 252 NET [ESTABLISHMENT OF THE WEB BASED WMO RADAR DATABASE \(WRD\)](#)
Oguzhan Sireci, Turkish Meteorological Service, Dr. Paul Joe, Kamuran Akıldiz
[short abstract](#) [extended abstract](#)
- 253 NET [New Quality Assurance Algorithms for the DWD Polarimetric C-Band Weather Radar Network](#)
Manuel Werner, Deutscher Wetterdienst, Offenbach, Joerg Steinert
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Radar Case Studies (RCS)

- 255 RCS [The effect of forest fires over the located rain on the eastern Amazon](#)
Kézia Araújo, Amazon Protection System (SIPAM), Vanda M. S de Andrade, Jaci M. B Saraiva
[short abstract](#) [extended abstract](#)
- 256 RCS [Case study of a severe storm refractivity signature with an operational radar and the Fabry algorithm modified for a magnetron transmitter](#)
Lucas Besson, Météo France - DSO/CMI, Frédéric Fabry, Jacques Parent-du-Chatelet
[short abstract](#) [extended abstract](#)

- 257 RCS C-Band dual polarimetric observations of snow events with and without lightning over the Great Lakes region in southern Canada.
Sudesh Boodoo, Environment Canada, D. Hudak, N. Donaldson, M. Leduc, L. Bliven.
[short abstract](#)
- 258 RCS Low-Level Divergence Measurements During MC3E
Paloma Borque, Department of Atmospheric and Oceanic Sciences, McGill University, Pavlos Kollias, Kirk North, Scott Giangrande, Scott Collis
[short abstract](#)
- 259 RCS Relationships between lightning activity, microphysics and kinematics in thunderclouds : a case of study observed by S and C band radars in the South of France (HyMex SOP area)
Magalie Buguet, Laboratoire d'Aérodynamique, OMP, Université Paul Sabatier, **Sylvain Coquillat**, Serge Soula, Christelle Barthe, Olivier Bousquet, Michel Chong, Eric Defer
[short abstract](#) [extended abstract](#)
- 260 RCS Relationship between convective precipitation and lightning activity in southeastern Romania
Sorin Burcea, National Meteorological Administration, Daniel Carbutaru, Aurora Bell
[short abstract](#)
- 261 RCS The 2011 summer season experiment carried out by ARPA Emilia-Romagna for the management of severe weather events: evaluation of the implemented procedures and case studies analysis.
Miria Celano, ARPA-SIMC, P.P. Alberoni, A. Fornasiero, R. Foraci, P. Mezzasalma and S. Nanni
[short abstract](#) [extended abstract](#)
- 262 RCS Using Euskalmet Radar data for analysis of a persistent precipitation case
Joseba Egaña, Euskalmet / Tecnalia - meteo unit, **Santiago Gaztelumendi**, Virginia Palacio, Ivan R. Gelpi, Kepa Otxo de Alda, Roberto Hernandez, Mercedes Maruri
[short abstract](#) [extended abstract](#)
- 263 RCS A study of a very heavy precipitation case in Basque Country: the 30th May 2011 event.
Santiago Gaztelumendi, Euskalmet / Tecnalia - meteo unit, J. Egaña, I.R Gelpi, K. Otxo de Alda, M. Maruri, R. Hernandez.
[short abstract](#) [extended abstract](#)
- 264 RCS Spatio-temporal multifractal comparison of 4 rainfall events at various locations: radar data and meso-scale simulations
Auguste Gires, Université Paris-Est, Ecole des Ponts ParisTech, LEESU, Tchiguirinskaia I., Schertzer D.
[short abstract](#) [extended abstract](#)
- 265 RCS Use of radar data for analysis of hailstorm in Valjevo city (west part of Serbia) on 19th June 2010
Vesna Ivkov, Republic Hydrometeorological Service of Serbia
[short abstract](#)
- 266 RCS Three-Dimensional Classification of Precipitation Types using Reflectivity from Wind Profiler and Weather Radar Networks
Sung-Hwa Jung, Department of Astronomy and Atmospheric Sciences, GyuWon Lee, Young-A Oh, Su-Hyang Lee, Kwang-Deuk Ahn, and Yong-Hee Lee
[short abstract](#)
- 267 RCS A linear array of pressure and wind sensors for high resolution in situ measurements in winter tornadoes
Kenichi Kusunoki, Meteorological Research Institute, Eiichi Sato, Shigeru Onogi, Sadao Saito, Hanako Inoue, Wataru Mashiko, Kenichi Shimose, Masahide Nishihashi, Kenichiro Arai, Hiroyuki Morishima, and Keiji Adachi
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- 268 RCS Proximity soundings in rapid succession within winter tornadic storm during the Shonai Area Railroad Weather Project
Kenichi Kusunoki, Meteorological Research Institute, Hanako Inoue, Syugo Hayashi, Shunsuke Hoshino, Masahide Nishihashi, Kenichi Shimose, Kenichiro Arai, Wataru Mashiko, Masako Kusume, Hiroyuki Morishima, Keiji Adachi
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- 269 RCS Radar and surface mesonet observations of convection initiation associated with seabreeze front and outflow boundary
Kenichi Kusunoki, Meteorological Research Institute, Sadao Saito and Hanako Inoue
[short abstract](#) [extended abstract](#)

- 270 RCS Observation of storm merger and subsequent tornadogenesis over the Kanto Plain in Japan
Kenichi Kusunoki, Meteorological Research Institute
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- 271 RCS The orographic effect on tracks of convective cells - A case study at the Swabian Jura
Miriam Kuttig, Karlsruhe Institute of Technology, Jan Handwerker
[short abstract](#)
- 272 RCS Establishment of a Multiple-Doppler Radar Wind Retrieval System and Its Application to the Analysis of the Typhoon Nari at its landfall
Seon-Yong Lee, National Institute of Meteorological Research, Young-Jean Choi, Mi-Young Gang and Sol-Ip Heo
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- 273 RCS Severe Storm in the metropolitan region of Belem: A Case Study
Jorge Lopes, SIPAM, **Jaci Saraiva**, Carlos Simoes
[short abstract](#) [extended abstract](#)
- 274 RCS Extreme events occurred in 2009 in the Eastern Amazon Oriental
Renata Loureiro, Sistema de Proteção da Amazônia (SIPAM), Vanda Maria Sales de Andrade, Douglas Batista da Silva Ferreira, **Jaci Maria Bilhalva Saraiva**
[short abstract](#)
- 275 RCS Characterizing the diurnal cycle of precipitation over complex Alpine orography using four-dimensional radar observations
Pradeep Mandapaka, MeteoSwiss, **Urs Germann**, Luca Panziera
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- 276 RCS Systematic investigations of intense convective precipitation events in Austria based on radar cell tracking
Vera Meyer, Zentralanstalt für Meteorologie und Geodynamik, Andreas Schaffhauser
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- 277 RCS Case studies of severe thunderstorms
Malte Neuper, Karlsruhe Institut of Technology (KIT) - Institute for Meteorology and Climate Research, Jan Handwerker
[short abstract](#) [extended abstract](#)
- 278 RCS An observational look at quasi-stationary lines of heavy orographic rainfall over the Southern Alps
Luca Panziera, MeteoSwiss, Curtis James, **Urs Germann**
[short abstract](#)
- 281 RCS A Multivariate Analysis of Lake-Effect Snow Events in Western New York
Gustavo Pereira, State University of New York College at Brockport, Matthew S. Muscato, State University of New York at Brockport
[short abstract](#)
- 282 RCS Evolution of Two Summer Bow Echoes in Central and Southern Serbia
Maja Rabrenovic, Ministry of Interior, Sector for Emergency Management, Miroljub Zaric
[short abstract](#)
- 283 RCS Assessing the accuracy of weather radar to track intense rain cells and to analyse the relationships with topography and land cover in the area of Greater Lyon area, France
Florent Renard, Université Jean Moulin Lyon 3 - CNRS UMR 5600 Environnement Ville Société, Jacques COMBY
[short abstract](#) [extended abstract](#)
- 284 RCS A case study of heavy and persistent rainfall, 4-7 November 2011.
Miriam Ruiz, Euskalmet / Tecnalia - Meteo Unit, J. Egaña, **S. Gaztelumendi**, M. Maruri, R. Hernandez, I.R. Gelpi
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- 285 RCS X band polarimetric & Doppler Radar observations of heavy precipitation events over the Mediterranean region (France)
Jean-François Rysman, LATMOS/IPSL/UVSQ-P6/CNRS, Y. Lemaître and E. Moreau
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- 286 RCS Study of Hail Storm features in Mesoscale Convective Systems over South East Asia by TRMM – Precipitation Radar and Microwave Imager
Sanjay Shama, Kohima Science College, Jotsoma, Devajyoti Dutta, Rakesh Mohan Gairol
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- 287 RCS Analysis of a storm through radar and rawinsonde sounding for equatorial region
Mirlen Tassia Filgueira da Silva, Amazon Protection System (SIPAM), Vanda M. S de Andrade, Jaci M.B. Saraiva
[short abstract](#) [extended abstract](#)

- 288 RCS [Analysis of two extremes in the western Amazon.](#)
Mauro Silva, *Sistema de Proteção da Amazônia*, Ivan Saraiva, Gustavo Guterrez Ribeiro
[short abstract](#)
- 289 RCS [Preliminary results from the ROTATE-2012 Radar and In Situ Study of Low Level Wind Structure of Tornadoes](#)
Joshua Wuman, *Center for Severe Weather Research*, Karen Kosiba
[short abstract](#)
- 290 RCS [Polarimetric Doppler Radar Observations of Low-Reflectivity Ribbons in Supercells](#)
Jeffrey Snyder, *University of Oklahoma*, Howard Bluestein, Vijay Venkatesh, and Stephen Frasier
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- 291 RCS [Hailstorm over North Bulgaria on 21.05.2008](#)
Ivaylo Zamfirov
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- 292 RCS [How Can East Asian Wintermoon Influence the Pacific Storm Track?](#)
Man Zhang, *College of Atmospheric Sciences, Nanjing University of Information Science & Technology, Nanjing 210044, China*, Xiaofeng Xu, Wenjun Zhang, and **Youcun Qi**
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Non Meteorological Use of Weather Radars (NMUR)

- 293 NMUR [Interesting non-meteorological, Dual Polarimetric data from DYNAMO/CINDY over the Indian Ocean](#)
John Hubbert, *UCAR/EOL*, Mike Dixon
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- 294 NMUR [Migrating insects observed by weather radar in traps](#)
Matti Leskinen, *University of Helsinki*, **Dmitri Moisseev**, Jarmo Koistinen, Irmeli Markkula
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- 295 NMUR [Channelling effect of the coastline and radar observed insect migration](#)
Matti Leskinen, *University of Helsinki*, Hannu Savijärvi, Kauri Mikkola, **Susanna Lauportti**
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- 296 NMUR [Weather radar observations of Underwing moth immigrations to Finland](#)
Matti Leskinen, *University of Helsinki*, Kauri Mikkola, **Laura Rojas**
[short abstract](#) [extended abstract](#)
- 298 NMUR [Wheat disease forecasting using weather radar observations](#)
Abdeslam Mahtour, *Université de Liège*, M. El Jarroudi, **L. Delobbe**, L. Hoffmann, H. Maraite and B. Tychon
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- 299 NMUR [Synergistic use of ash dispersal model, microwave radar simulators and remote observations to study explosive volcanic ash eruptions](#)
Mario Montopoli, *Univ. of Cambridge, UK and Univ. of L' Aquila Italy (CETEMPS)*, A. Hoffmann, M. Herzog, H. Graf and F. S. Marzano
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- 300 NMUR [Fire detection by C-Band dual polarization Radar](#)
Alberto Pettazzi, *MeteoGalicia*, Santiago Salsón Casado
[short abstract](#)
- 302 NMUR [Radar based passive measurement of vehicle speed in optical spectrum](#)
Lubos Rejcek, *University of Pardubice*, Vladimir Brazda
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- 303 NMUR [A Time-Series Polarimetric Radar Simulator for Biological Applications](#)
Phillip M. Stepanian, *University of Oklahoma, Atmospheric Radar Research Center*, Phillip B. Chilson
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