



**International Symposium  
« Weather Radar and Hydrology 2008 »**

**Programme**

**GRENOBLE CONFERENCE**

**MONDAY 10 MARCH 2008**

**Centre de Conférences Internationales de Grenoble (CCI):**

**08h00-09h45:** Welcoming of attendees, registration, poster hanging and presentation uploading, coffee

**09h45-10h00:** Brief presentation of the conference, Guy Delrieu

**10h00-12h00:** **Oral session 1: Improving rainfall estimation in operational networks; Chairman: Malcom Kitchen**

10h00-10h30: Keynote speech 1: USING RADARS FOR RAINFALL ESTIMATION: THE POINT OF VIEW OF AN OPERATIONAL SERVICE.  
*Pierre Tabary*

10h30-10h45: THE EUROPEAN WEATHER RADAR NETWORK (OPERA): AN OPPORTUNITY FOR HYDROLOGY! (O1-007)  
*Iwan Holleman, Laurent Delobbe, Anton Zgonc*

10h45-11h00: QUANTITATIVE PRECIPITATION ESTIMATION IN THE PRESENCE OF GROUND AND AP CLUTTER. (O1-001)  
*Dusan Zrnica, Valery Melnikov, Pengfei Zhang*

11h00-11h15: A VPR CORRECTION METHOD BASED ON SEPARATING PRECIPITATION TYPES. (O1-002)  
*María Franco, Rafael Sánchez-Diezma, Isztar Zawadzki, Daniel Sempere-Torres*

11h15-11h30: A STORM CLASSIFICATION APPROACH FOR REAL-TIME RAINFALL ESTIMATION. (O1-018)  
*Siriluk Chumchean, Alan Seed, Ashish Sharma*

11h30-11h45: PROVISION OF ERROR ESTIMATES FOR RAINFALL DERIVED FROM OPERATIONAL POLARIZATION RADARS. (O1-003)  
*Anthony Illingworth, Robert Thompson, Jacqueline Sugier*

11h45-12h00: RAINFALL ESTIMATION ALGORITHM FOR POLARIMETRIC NEXRAD. (O1-004)  
*Alexander Ryzhkov, Scott Giangrande*

**12h00-12h30:** **Short oral presentations of Poster Session 1**

12h30-14h00: Lunch break

14h00-16h00:

**Poster Session 1 (Radar Physics and Hydrology) and Exhibitions**

RADAR MONITORING OF DAM-INDUCED RAINFALL LINES AT THE WEST OF THE SÃO PAULO STATE, BRAZIL (P1-001)

*Agostinho Antonio, M. , Agostinho Antonio, C.A.*

GENESIS OF MESOSCALE CYCLONIC VORTICES OVER TROPICAL BRAZIL: A CASE STUDY USING A SINGLE-DOPPLER WEATHER RADAR (P1-002)

*Agostinho Antonio, M. , Baldicero Molion, L.C. , Tenorio, R.S.*

RAINDROP DISTRIBUTION IN THE EASTERN COAST OF NORTHEASTERN BRAZIL USING DISDROMETER DATA (P1-003)

*Tenorio, R.S. , Kwon, B.H. , Moraes, M.C.S.*

MONSOON-RELATED PRECIPITATION AS OBSERVED BY THE MIT DOPPLER RADAR IN NIAMEY, NIGER, DURING THE AMMA SOP (P1-004)

*Chong, M. , Roux, F. , Williams, E.*

PRECIPITATION STUDIES OVER THE CLERMONT-FERRAND URBAN AREA (P1-005)

*Van Baelen, J. , Pointin, Y. , Fournet-Fayard, J. , Collay, T. , Dauge, T. , Bourdillon, M., Dartigues, P.*

SIMULTANEOUS X-BAND AND K-BAND STUDY OF PRECIPITATION HETEROGENEITY AND ASSOCIATED Z-R RELATIONSHIPS (P1-006)

*Van Baelen, J. , Pointin, Y. , Brucker, L. , Peters, G. , Clemens, M. , Fischer, B. , Muenster, H.*

PRECIPITATION MONITORING AT DIFFERENT SPATIAL AND TEMPORAL SCALES USING AN INNOVATIVE RAINGAGE-DISDROMETER NETWORK: THE X-BAND PLUDIX (P1-007)

*Casazza, M. , Fassio, F. , Piano, A. , Santi, E. , Franco, P. , Francesca, T. , Clelia, C.*

PRELIMINARY RESULTS ON CONVECTIVE CELLS AND RAIN FALL STUDIES DURING COPS (P1-009)

*Van Baelen, J. , Pointin, Y. , Tridon, F. , Hagen, M.*

ON-LINE MONITORING OF WEATHER RADAR ANTENNA POINTING USING HIGH-RESOLUTION DTM AND AI TECHNIQUES (P1-010)

*Rico-Ramirez, M. , Gonzalez-Ramirez, E. , Cluckie, I.*

SEA CLUTTER REMOVAL USING RADAR ELEVATION DEPENDENT SECOND ORDER TEXTURE PARAMETERS (P1-011)

*Gill, R.S. , Bøvith, T. , Overgaard, S.*

EVALUATION OF A BRIGHT BAND IDENTIFICATION ALGORITHM USING POLARIMETRIC RADAR DATA (P1-012)

*Franco, M. , Pfeifer, M. , Sempere-Torres, D. , Hagen, M. , Sánchez-Diezma, R.*

PERFORMANCE OF HIGH-RESOLUTION X-BAND RADAR FOR RAIN MEASUREMENT IN THE NETHERLANDS EVALUATED USING A MULTI-YEAR DATA SET (P1-013)

*Van de Beek, R. , Leijnse, H. , Stricker, H. , Uijlenhoet, R. , Russchenberg, H.*

APPLICATION OF AN XBAND RADAR FOR TROPICAL RAIN : RAINFALL MONITORING OF A SMALL BASIN IN BÉNIN DURING THE AMMA CAMPAIGN . (P1-014)

*Gosset, M. , Cazenave, F. , Dossougoin, J. , Kadjo, A.*

APPLICATION POTENTIALITY OF A COST-EFFECTIVE X-BAND WEATHER RADAR FOR THE QUANTIFICATION OF PRECIPITATION IN NORTHERN ITALY (P1-015)

*Salerno, F. , Ceppi, A. , Di Pasquale, D. , Tartari, G.*

A NEW MOBILE POLARIMETRIC X-BAND RADAR FOR ACCURATE PRECIPITATION MEASUREMENTS (P1-016)

*Borgmann, J. , Hannesen, R. , Gözl, P. , Frank, G.*

THE RAIN ACCUMULATION PRODUCT FROM THE X-BAND POLARIMETRIC RADAR HYDRIX (P1-017)

*Le Bouar, E. , Moreau, E. , Testud, J.*

INFLUENCE OF ATTENUATION ON RAINFALL ESTIMATION BASED ON REFLECTIVITY AND DIFFERENTIAL REFLECTIVITY AT X BAND (P1-019)

*Gorgucci, E. , Baldini, L.*

MOBILE WEATHER RADAR FOR COMMERCIAL APPLICATIONS (P1-020)

*Pool, M.*

POLARIMETRIC WSR-88D REFLECTIVITY AND DIFFERENTIAL REFLECTIVITY ATTENUATION CORRECTION FOR TROPICAL RAINFALL (P1-021)

*Schuur, T.J. , Giangrande, S.E. , Ryzhkov, A.V.*

CAN WE USE POLARIMETRIC X-BAND RADARS FOR OPERATIONAL QUANTITATIVE PRECIPITATION ESTIMATION IN HEAVY RAIN REGIONS ? (P1-022)

*Tabary, P. , L'Henaff, G. , Dupuy, P. , Parent du Châtelet, J. , Testud, J.*

COMPARISON OF TWO ALGORITHMS FOR QUANTITATIVE PRECIPITATION ESTIMATES FROM OPERATIONAL POLARIMETRIC RADARS FOR HYDROLOGICAL APPLICATIONS (P1-023)

*Tabary, P. , Boumahmoud, A.-A. , Do Khac, K. , Parent du Châtelet, J. , Andrieu, H. , Testud, J. , Thompson, R.J. , Illingworth, A.J.*

A RAINFALL ESTIMATION BY RADAR CALIBRATED AGAINST RAIN GAUGES : A RESPONSE FOR THE HYDRO-METEOROLOGICAL FORECAST AND THE MANAGEMENT OF CRISIS. (P1-024)

*Mizzi, J.-P. , Fromental, A.-M. , Lavabre, J. , Parent du Châtelet, J.*

TOWARDS HIGHER PRECISION QUANTITATIVE PRECIPITATION ESTIMATES FROM THE UNITED KINGDOM WEATHER RADAR NETWORK (P1-025)

*Harrison, D. , Scovell, R. , Kitchen, M.*

UNCERTAINTY ASSESSMENT IN THE FRAMEWORK OF RADAR QUANTITATIVE PRECIPITATION ESTIMATE DEVELOPED AT ARPA-SIM (P1-026)

*Fornasiero, A. , Amorati, R. , Marsigli, C. , Alberoni, P.P.*

INTEGRATION OF RADAR MICROWAVE LINK AND DISDROMETER DATA FOR IMPROVED QUANTITATIVE RAINFALL ESTIMATION - PART I: ATTENUATION ANALYSIS AND CORRECTION METHODOLOGY (P1-027)

*Krämer, S. , Verworn, H.-R.*

INTEGRATION OF RADAR MICROWAVE LINK AND DISDROMETER DATA FOR IMPROVED QUANTITATIVE RAINFALL ESTIMATION - PART II: ADVANCED ATTENUATION CORRECTION AND R-Z PROCEDURES (P1-028)

*Krämer, S. , Verworn, H.-R.*

IDENTIFICATION OF TEMPORAL-CONSTANT Z/R RELATIONSHIPS BASED ON MEASUREMENTS USING MICRO-RAIN RADAR (P1-030)

*Clemens, M. , Peters, G. , Seltmann, J. , Winkler, P.*

15h30-16h00:

Coffee break

**16h00-19h15:**        **Oral Session 2: Other promising rainfall measurements techniques; Chairman: Chris Collier**

- 16h00-16h30:        Keynote speech 2: RADAR PHYSICS AND HYDROLOGY.  
*Isztar Zawadzki*
- 16h30-16h45:        EVALUATION OF SURFACE RAINFALL-RATE DERIVED USING THE THURNHAM DUAL POLARISATION RADAR. (O1-005)  
*Jacqueline Sugier, Miguel Rico-Ramirez, Robert Thompson, Anthony Illingworth, Ian Cluckie, Malcolm Kitchen, Michael Vaughan, Turner Russell*
- 16h45-17h00:        VALIDATION OF THE RAINFALL ESTIMATION USING THE OPERATIONAL ALGORITHM FROM C-BAND POLARIMETRIC RADAR. (O1-006)  
*Eiichi Nakakita, Hidenobu Takehata, Katsuhiko Nakagawa*
- 17h00-17h15:        RECENT ADVANCES IN THE USE OF OF X-BAND POLARIMETRIC RADAR AS A HYDROLOGICAL SENSOR - SENSITIVITY OF POLARIMETRIC VARIABLES AND POLARIMETRIC RAINFALL ESTIMATORS. (O1-008)  
*Masayuki Maki, Sang-Goon Park, V.N. Bringi*
- 17h15-17h30:        APPLICATION OF AN XBAND RADAR IN TROPICAL RAIN : RAINFALL MONITORING OVER A SMALL BASIN, IN BÉNIN DURING THE AMMA CAMPAIGN. (O1-009)  
*Marielle Gosset, Frederic Cazenave, Josias Dossougoin, Augustin Kadjo*
- 17h30-17h45:        EXPERIMENTAL RESULTS ON RAINFALL ESTIMATION IN COMPLEX TERRAIN WITH A MOBILE X-BAND POLARIMETRIC RADAR. (O1-010)  
*John Kalogiros, Marios Anagnostou, Michele Tarolli, Emmanouil Anagnostou, Marco Borga, Anastassios Papadopoulos*
- 17h45-18h00:        SYNTHETIC RETRIEVAL STUDY FOR POLARIMETRIC X-BAND RADARS BASED ON A VARIATIONAL SCHEME. (O1-011)  
*Lesya Borowska, Alessandro Battaglia, Dirk Schüttemeyer, Simmer Clemens*
- 18h00-18h15:        ON THE USE OF A MOBILE XPOL WEATHER RADAR FOR FLOOD WARNING. (O1-012)  
*Augusto José Pereira Filho, Oswaldo Massambani, Ricardo Hallak, Cesar Beneti*
- 18h15-18h30:        MAPPING THE PRECIPITATION FROM X-BAND WEATHER RADAR: RAINFALL SPATIAL VARIABILITY AND ITS IMPLICATION IN THE ACCURACY OF RAINFALL ESTIMATES. (O1-013)  
*Emmanuel Moreau, Jacques Testud, Erwan Le Bouar*
- 18h30-18h45:        ADJUSTMENT OF C-BAND RADAR WITH MOBILE VERTICAL POINTING X-BAND RADAR. (O1-015)  
*Michael R. Rasmussen, Flemming Vejen, Rasphal Gill, Søren Overgaard*
- 18h45-19h00:        SOURCES OF ERROR IN MICROWAVE LINK RAINFALL ESTIMATION. (O1-016)  
*Hidde Leijnse, Remko Uijlenhoet, Iwan Holleman*
- 19h00-19h15:        COMBINING DATA FROM RADARS AND MICROWAVE LINKS. (O1-017)  
*Rob Cummings, Graham Upton, Anthony Holt, Kitchen Malcolm*

**19h15:**                **End of first day**

**Musée de Grenoble:**

**19h30-22h00:**        **Ice-breaker and welcoming addresses from representatives of OSUG, INSU/CNRS and Météo-France**  
Guided visits of the Museum temporary exhibitions

## **TUESDAY 11 MARCH 2008**

### **Centre de Conférences Internationales de Grenoble (CCI) :**

**08h00-08h30: Welcoming of attendees, presentations uploading**

**08h30-11h45: Oral session 3: Quantitative Precipitation Estimation; Chairman: **Hervé Andrieu****

08h30-09h00: Keynote speech 3: QPE: UNCERTAINTY ASSESSMENT AND MULTI-SENSOR MERGING.  
**Witold Krajewski**

09h00-09h15: THE AQUARADAR FIELD CAMPAIGN: A COMPREHENSIVE DATA SET TO IMPROVE AREAL PRECIPITATION ESTIMATION BY WEATHER RADAR. (O2-001)  
*Martin Hagen, Marco Clemens, Susanne Crewell, Jan Handwerker, Martin Leeb, Gerhard Peters, Joerg Seltmann, Clemens Simmer, Miklos Szakall, Peter Winkler, Wenchieh Yen*

09h15-09h30: COMBINING WEATHER RADAR AND RAINGAUGE DATA FOR HYDROLOGIC APPLICATIONS: FROM THEORY TO PRACTICE. (O2-002)  
*Ezio Todini*

09h30-09h45: QUANTITATIVE PRECIPITATION ESTIMATION USING RADAR, GAUGE AND SATELLITE FOR HYDROMETEOROLOGICAL APPLICATIONS IN AN OPERATIONAL CENTER IN THE SOUTH OF BRAZIL. (O2-003)  
*Cesar Beneti, Leonardo Calvetti, Ieda Pscheidt, Augusto Pereira Filho, Reinaldo Silveira*

09h45-10h00: MULTI-SENSOR PRECIPITATION REANALYSIS. (O2-004)  
*Brian Nelson, Dongsoo Kim, D.J. Seo*

10h00-10h15: EVALUATION OF SEVERAL RADAR-GAUGE MERGING TECHNIQUES FOR OPERATIONAL USE IN THE WALLOON REGION OF BELGIUM. (O2-005)  
*Laurent Delobbe, Georges Bastin, Philippe Dierickx, Guillaume Leclercq, Luc Moens, Marina Thunus*

10h15-10h30: ON THE ROBUST ESTIMATION OF RAINFALL FIELDS MERGING RADAR AND RAIN GAUGES DATA IN AN OPERATIONAL CONTEXT. (O2-006)  
*Carlos Velasco-Forero, Alan Seed, Daniel Sempere-Torres, Geoffrey Pegram*

**10h30-11h00: Coffee break**

11h00-11h15: MERGING RADAR AND GROUND OBSERVATIONS FOR OPERATIONAL QUANTITATIVE RAINFALL ESTIMATION IN A MOUNTAINOUS HEAD CATCHMENT IN GERMANY. (O2-008)  
*Maik Heistermann, Uwe Ehret, Axel Bronstert, Erwin Zehe*

11h15-11h30: SPATIAL STRUCTURES AND VARIABILITY OF INTENSE MEDITERRANEAN PRECIPITATION. (O2-013)  
*Alexis Berne, Guy Delrieu, Brice Boudevillain*

11h30-11h45: WEATHER RADAR DERIVED RAINFALL AREAL REDUCTION FACTORS. (O2-014)  
*Peter Jolly, Daniel Jobin, Sid Lodewyk*

**11h45-12h30: Short oral presentations of Poster Sessions 2**

**12h30-14h00: Lunch break**

14h00-16h00:

**Poster session 2 (Quantitative Precipitation Estimation and Forecasting) and exhibitions**

IDENTIFICATION OF VERTICAL PROFILES OF REFLECTIVITY FROM VOLUME SCAN RADAR DATA : ADAPTATION OF AN INVERSE METHOD TO RAINFALL TYPING (P2-001)

*Kirstetter, P.-E. , Andrieu, H.*

ADJUSTMENT OF A ROBUST Q-Z/R-RELATIONSHIP FOR HYDROLOGICAL MODELLING USING OBSERVED RIVERDISCHARGE DATA (P2-002)

*Marx, A. , Kunstmann, H. , Bárdossy, A. , Seltmann, J.*

TOTAL RAINFALL ESTIMATION OF A STORM USING INTEGRAL RADAR VOLUME DESCRIPTORS (P2-003)

*Trömel, S. , Simmer, C.*

USING A HYDROMETEOR CLASSIFICATION ALGORITHM FROM TWO DOPPLER C-BAND RADAR DATA TO INFER SNOWFALL AREAS IN WINTER EVENTS. (P2-004)

*Celano, M. , Alberoni, P.P.*

HYDRO-NEXRAD: BASIN-WIDE PRECIPITATION METADATA CALCULATION USING NEXRAD DATA (P2-005)

*Domaszczyński, P. , Krajewski, W. , Kruger, A.*

ESTIMATION OF RADAR-RAINFALL ERROR SPATIAL COVARIANCE (P2-006)

*Mandapaka, P.-V. , Krajewski, W. , Ciach, G.-J. , Villarini, G. , Smith, J.-A.*

BOLLENE 2002 EXPERIMENT: RADAR QUANTITATIVE PRECIPITATION ESTIMATION IN THE CEVENNES-VIVARAIS REGION, FRANCE (P2-007)

*Delrieu, G. , Boudevillain, B. , Nicol, J. , Chapon, B. , Kirstetter, P.-E. , Andrieu, H. , Faure, D.*

ANTILOPE: HOURLY RAINFALL ANALYSIS MERGING RADAR AND RAINGAUGES DATA (P2-008)

*Laurantin, O.*

TAKING RAIN GAUGE ERRORS INTO ACCOUNT IN THE CALIBRATION OF A SHORT RANGE X-BAND WEATHER RADAR (P2-010)

*Goormans, T. , Willems, P.*

QUANTITATIVE ESTIMATION OF DAILY RAIN AMOUNTS OVER MEDITERRANEAN AND DRY CLIMATES USING RADAR AND RAIN GAUGE DATA (P2-011)

*Efrat, M. , Marco, G.*

RAIN EVALUATION USING WEATHER RADAR IN FLOOD IN URBAN AREA IN THE CENTER OF THE STATE OF SÃO PAULO, BRAZIL (P2-012)

*Agostinho Antonio, M. , Andrade, J.P.M.*

QUANTITATIVE PRECIPITATION ESTIMATION IN NORTH PART OF SERBIA (P2-013)

*Stevanovich, S. , Vucinich, Z.*

COMPARISON OF MM5 OUTPUT TO ADJUSTED RADAR RAINFALL DATA (P2-014)

*Einfalt, T. , Keskin, F.*

UNCERTAINTY ANALYSIS OF INTERPOLATION METHODS IN RAINFALL SPATIAL DISTRIBUTION (P2-015)

*Tao, T. , Chocat, B. , Liu, S. , Xin, K.*

IS THE VARIOGRAM A GOOD TOOL FOR ASSESSING THE SPATIAL VARIABILITY OF VERTICAL PROFILES OF REFLECTIVITY? (P2-016)

*Mohymont, B. , Delobbe, L.*

SIMULATION OF 2D FIELDS OF RAINDROP SIZE DISTRIBUTIONS (P2-017)  
*Berne, A. , Uijlenhoet, R.*

QUALITY CHECK OF A GAUGE-BASED DAILY PRECIPITATION DATASET: USING  
MAXIMUM RAIN RATE GIVEN IN THE STANDARD PRODUCT 2A25 OF TRMM/PR  
(P2-018)  
*Kawamoto, H. , Yatagai, A.*

EXTREME RAINFALL STATISTICS BASED ON RAIN GAUGES AND RADAR  
MEASUREMENTS (P2-019)  
*Pedersen, L. , Jensen, N.E. , Madsen, H.*

A NOVEL RAIN GAUGE NETWORK DESIGN METHODOLOGY USING WEATHER  
RADAR AND PCA (P2-020)  
*Bray, M. , Han, D.*

DEVELOPING A METHOD TO ESTIMATE GLOBAL DISTRIBUTION OF TEMPORAL  
AND SPATIAL CORRELATION LENGTHS OF INSTANTANEOUS RAINFALL USING  
LOW FREQUENT OBSERVATION FROM SPACE (P2-021)  
*Nakakita, E. , Konoshima, L.*

QUANTIFYING THE DIURNAL CYCLE OF PRECIPITATION TO IMPROVE MAPLE  
RAINFALL FORECASTS (P2-023)  
*Berenguer, M. , Zawadzki, I.*

A COMPARATIVE STUDY ON TWO SHORT-TERM RAINFALL FORECASTING  
METHOD APPLIED TO JUNGRANG WATERSHED, KOREA (P2-025)  
*Yoon, S.-S. , Bae, D.-H. , Kim, G.*

A STUDY OF COMBINING WEATHER RADAR AND A NUMERICAL WEATHER  
MODEL FOR SHORT-TERM RAINFALL PREDICTION (P2-026)  
*Bae, D.-H. , Yoon, S.-S.*

ACCOUNTING FOR THE STOCHASTIC NATURE OF RAIN FIELD DISPLACEMENT  
BY SCALE DECOMPOSITION (P2-027)  
*Heistermann, M. , Zehe, E.*

FLOOD PREVENTION IN URBAN AREA WITH PROMISING RAINFALL  
FORECASTING APPROACH (P2-028)  
*Doan, C.D. , Liang, S.-Y. , Nakakita, E. , Nguyen, H.H. , He, S.*

A PHYSICALLY-BASED DOWSCALING BY A COUPLED LAND-ATMOSPHERE  
SATELLITE DATA ASSIMILATION SYSTEM (P2-029)  
*Boussetta, S. , Koike, T. , Tobias, G.*

RADAR DATA INTERPOLATION FOR IMPROVEMENT OF GAUGE ADJUSTMENT  
TECHNIQUES (P2-030)  
*Pfaff, T. , Bárdossy, A.*

16h00-16h30:

Coffee break

**16h30-18h45:**      **Oral session 4: Quantitative Precipitation estimation and forecasting; Chairman: Dung Jun Seo**

16h30-17h00:      Keynote speech 4: QUANTITATIVE PRECIPITATION FORECASTING: A REVIEW.  
*Alan Seed*

17h00-17h15:      RELEVANCE OF RAINFALL ESTIMATES FROM A DUAL POLARIZED X-BAND  
RADAR. (O2-009)  
*Stéphanie Diss, Jacques Testud, Jacques Lavabre, Emmanuel Moreau, Pierre  
Ribstein*

17h15-17h30:      TOWARD AN ERROR MODEL FOR RADAR QUANTITATIVE PRECIPITATION  
ESTIMATION IN THE CÉVENNES-VIVARAIS REGION, FRANCE (O2-010)  
*Pierre-Emmanuel Kirstetter, Guy Delrieu, Brice Boudevillain*

17h30-17h45:      ASSESSMENT OF UNCERTAINTY IN RADAR RAINFALL ESTIMATES (O2-012)  
*Daniele Norbiato, Marco Borga*

17h45-18h00:      QUANTIFYING AND PREDICTING THE ACCURACY OF RADAR-BASED  
QUANTITATIVE PRECIPITATION FORECASTS (O2-015)  
*Frederic Fabry, Alan W. Seed*

18h00-18h15:      RAINFALL NOWCASTING USING APPROXIMATE BAYESIAN INFERENCE(O2-016)  
*Remi Barillec, Dan Cornford*

18h15-18h30:      ENSEMBLE KALMAN FILTER ASSIMILATION OF DOPPLER RADAR DATA USING  
THE CLOUD-RESOLVING NON-HYDROSTATIC MODEL WITH AN AIM TO  
INTRODUCE POLARIMETRIC RADAR DATA ASSIMILATION (O2-017)  
*Kosei Yamaguchi, Eiichi Nakakita*

18h30-18h45:      1D+3DVAR ASSIMILATION OF RADAR REFLECTIVITIES FOR SHORT-TERM  
HIGH-RESOLUTION QUANTITATIVE PRECIPITATION FORECASTS (O2-018)  
*Olivier Caumont, Stéphanie Pradier-Vabre, Véronique Ducrocq*

**18h45:**              **End of second day**

**La Bastille:**  
**20h30:**

**Gala dinner**

La Bastille is a mountain overlooking the city of Grenoble. The climbing will be done with the well-known Grenoble cable (the “eggs”). Gematronik will operate an X-pol mobile radar during the conference from the CCI; the radar will be installed at La Bastille and be possibly visited before the Gala dinner and during the poster sessions as well.

## **WEDNESDAY 12 MARCH 2008:**

### **Centre de Conférences Internationales de Grenoble (CCI) :**

**08h00-08h30: Welcoming of attendees, presentations uploading**

**08h30-12h00: Oral session 5: Distributed hydrological modelling;  
Chairman: Marco Borga**

- 08h30-09h00: Keynote speech 5: HYDROLOGICAL PROCESSES: VARIABILITIES AND UNCERTAINTIES.  
*Jim Freer*
- 09h00-09h15: ASSIMILATION OF RADAR-BASED QPE INTO DISTRIBUTED HYDROLOGIC MODEL FOR HIGH-RESOLUTION MONITORING AND PREDICTION OF HYDROLOGY AND WATER RESOURCES INFORMATION. (O3-001)  
*Haksu Lee, Dong Jun Seo, Victor Koren*
- 09h15-09h30: DISTRIBUTED HYDROLOGICAL MODELLING USING WEATHER RADAR IN GAUGED AND UNGAUGED BASINS. (O3-002)  
*Steven Cole, Robert Moore*
- 09h30-09h45: USING STOCHASTIC STATE-SPACE MODELLING WITH RADAR INPUT TO SPECIFY ERROR PROPAGATION AND REDUCE HYDROGRAPH ERROR. (O3-003)  
*Chris Collier*
- 09h45-10h00: FLASH FLOOD FORECASTING WITH THE SURFEX/TOPMODEL COUPLED SYSTEM. (O3-004)  
*Béatrice Vincendon, Ludovic Bouilloud, Katia Chancibault, Georges-Marie Saulnier, Véronique Ducrocq, Florence Habets, Eric Martin, Joël Nollhan*
- 10h00-10h15: A VARIATIONAL DATA ASSIMILATION METHOD FOR PARAMETER ESTIMATION OF A DISTRIBUTED HYDROLOGICAL FLASH FLOOD MODEL. (O3-005)  
*Hélène Bessiere, Hélène Roux, Denis Dartus*
- 10h15-10h30: ACCOUNTING FOR UNCERTAIN RADAR RAINFALL ESTIMATES IN DISTRIBUTED HYDROLOGICAL MODELLING. (O3-006)  
*Kai Schröeter, Xavi Lloret, Carlos Velasco, Dirk Muschalla, Manfred Ostrowski, Daniel Sempere-Torres*
- 10h30-11h00: Coffee break
- 11h00-11h15: PROPAGATION OF MEAN AREAL PRECIPITATION ERRORS INTO A LUMPED RAINFALL-RUNOFF MODEL: THE CASE OF UPPER LOIRE RIVER CATCHMENT. (O3-007)  
*Eric Gaume, Laetitia Moulin, Charles Obled*
- 11h15-11h30: SENSITIVITY OF THE HYDROLOGICAL RESPONSE OF SMALL UNGAUGED CATCHMENTS TO THE RESOLUTION OF THE RAINFALL FIELDS IN THE CONTEXT OF FLASH FLOODS. (O3-018)  
*Claire Manus, Isabelle Braud, Pierre Viallet, Sandrine Anquetin, Brice Boudevillain*
- 11h30-11h45: CHARACTERIZATION OF HYDROLOGIC PREDICTABILITY USING A DISTRIBUTED HYDROLOGIC MODEL WITH RADAR INPUT. (O3-008)  
*Baxter Vieux, John Imgarten, Jonathan Looper*
- 11h45-12h00: SPACE-TIME RAINFALL VARIABILITY AND EXTREME FLOOD RESPONSE IN THE SESIA RIVER BASIN, NORTH WESTERN ITALY. (O3-010)  
*Marco Sangati, Marco Borga, Davide Rabuffetti, Bechini Renzo*
- 12h00-12h30: Short oral presentations of Poster session 3**
- 12h30-14h00: Lunch break  
Meeting of the SC to determine who will organize the next edition

14h00-15h00:

**Poster session 3 (Distributed Hydrological Modelling) and exhibitions**

AN APPROACH TO IMPROVE SPATIALLY DISTRIBUTED PARAMETERS FOR HYDROLOGICAL MODELLING USING REGIONALIZATION PROCEDURES. (P3-001)

*Quintero, F. , Corral, C. , Sempere-Torres, D. , Velez, J.*

A CELL BASED PHYSICALLY BASED MODEL TO SIMULATE STREAM FLOW USING RADAR-BASED RAINFALL DATA APPLIED TO THE ILLINOIS RIVER BASIN IN OKLAHOMA, USA (P3-002)

*Safari, A. , De Smedt, F.*

HYDROLOGICAL STUDY OF THE AREA CATCHMENT OF WADI OUAHRANE IN THE WEST ALGERIEN (P3-003)

*Chenaoui, B.*

PRECIPITATION ENSEMBLES AS INPUT TO HYDROLOGICAL MODELS (P3-004)

*Szturc, J. , Osródka, K. , Jurczyk, A. , Jelonek, L.*

EVALUATION OF SEVERAL SYNTHETIC RADAR RAINFALL FIELDS BASED ON THE RUNOFF SIMULATIONS USING MODCLARK (P3-005)

*Chunsang, Y. , Byoungsoo, K. , Kyoungjun, K. , Jungsoo, Y. , Jeongho, C.*

CONTRIBUTION OF THE RAIN RATE BY RADAR IN OPERATIONAL FLOOD FORECASTING. (P3-006)

*Diss, S. , Arnaud, P. , Lavabre, J. , Testud, J.*

MERGING DATA FROM WEATHER RADAR AND RAINGAUGE NETWORKS: DISAGREEMENTS IN THE FRACTIONAL COVERAGE AND IMPLICATIONS FOR HYDROLOGICAL MODELLING (P3-008)

*Garcia-Pintado, J. , Barbera, G. , Erena, M. , Castillo, V.*

FLOW FORECASTING IN THE CORUMBATAI RIVER BASIN: RADAR RAINFALL CHARACTERIZATION (P3-009)

*Calheiros, R.S. , Gomes, A.M. , D'oliveira, A.B.*

USING WEATHER RADAR MEASUREMENTS FOR REAL-TIME RIVER FLOW FORECASTING (P3-010)

*Leclercq, G. , Bastin, G. , Moens, L. , Delobbe, L. , Dierickx, P. , Thunus, M.*

HYDROLOGICAL MODELING OF THE OURTHE CATCHMENT USING BOTH RADAR AND RAINGAUGE DATA (P3-011)

*Hazenberg, P. , Leijnse, H. , Uijlenhoet, R. , Delobbe, L.*

THE USE OF REMOTELY SENSED RAINFALL TO PREDICT FLOODS IN SMALL MOUNTAINOUS BASINS (P3-012)

*Nikolopoulos, E. , Anagnostou, E. , Borga, M. , Gebremichael, M.*

WHAT IS THE ABILITY OF DISTRIBUTED HYDROLOGIC MODELS DRIVEN BY RADAR-PRECIPIATTION FIELDS TO SIMULATE OBSERVED SCALING CHARACTERISTICS OF SPATIAL MOISTURE FIELDS? (P3-013)

*Gebremichael, M. , Vivoni, E.R.*

EXAMINATION OF HYDROLOGIC AND GEOMORPHIC RESPONSE TO AN OROGRAPHIC THUNDERSTORM IN THE CENTRAL ITALIAN ALPS (P3-014)

*Tarolli, P. , Borga, M. , Zanon, F. , Macconi, P.P.*

THE RADAR: AN ESSENTIAL POST-FLOOD ANALYSIS TOOL (P3-015)

*Gaume, E. , Borga, M.*

TOWARDS A RADAR-BASED OPERATIONAL WARNING SYSTEM FOR A RIVER CATCHMENT IN GERMANY (P3-019)

*Schüttemeyer, D. , Meetschen, D. , Grasselt, R. , Battaglia, A. , Simmer, C. , Walbeck, K. , Warrach-Sagi, K.*

ESTIMATING QUANTITATIVE PRECIPITATION FROM GROUND BASED RADARS AND RAIN GAUGES AS INPUTS FOR THE ROMANIAN DESWAT HYDROLOGICAL FORECAST MODELS (P3-020)

*Datta, S. , McHenry, J. , Imhoff, R. , Widener, D. , Coats, C. , Burnet, T. , Vukovich, J. , Condrey, J.*

OPERATIONAL FORECASTER TOOLS FOR DESWAT: DISPLAYS FOR SITE-SPECIFIC ROMANIAN FLOOD DATA FROM RADAR, POINT OBSERVATIONS AND MODELS (P3-021)

*Burnet, T. , Wilson, G. , Burchfield, D. , Widener, D. , McCown, P. , McHenry, J.*

THE DISTRIBUTED HYDROLOGICAL MODEL FORECAST SYSTEM: MODEL OVERVIEW AND DESWAT IMPLEMENTATION STRATEGY UTILIZING RADAR-BASED QPE/QPF (P3-022)

*McHenry, J. , Coats, C. , Garcia, M. , Gochis, D. , Yates, D. , Burnet, T. , Smith, T. , Condrey, J. , Kumar, S. , Peters-Lidard, C.*

QUANTITATIVE PRECIPITATION FORECASTING APPLIED IN A HYDROLOGIC MODEL FOR STREAMFLOW PREDICTIONS IN IGUASSU RIVER, SOUTHERN BRAZIL (P3-023)

*Calvetti, L. , Beneti, C. , Conselvan, A. , Pereira Filho, A.J. , Stringari, D.*

**15h00-18h00: Oral session 6: Distributed hydrological modelling; Chairman: Ian Cluckie**

15h00-15h30: Keynote speech 6: CHALLENGES IN DISTRIBUTED HYDROLOGICAL MODELLING.  
**Isabelle Braud**

15h30-15h45: HYDROLOGIC AND HYDRAULIC DISTRIBUTED MODELLING WITH RADAR RAINFALL INPUT - RECONSTRUCTION OF THE 8-9 SEPTEMBER 2002 CATASTROPHIC EVENT IN THE GARD REGION, FRANCE. (O3-009)  
*Laurent Bonnifait, Guy Delrieu, Matthieu Le Lay, Eric Gaume, Arielle Masson, Philippe Belleudy, Georges-Marie Saulnier*

15h45-16h00: TOWARD FLASH FLOOD PREDICTION IN THE DRY DEAD SEA REGION BY UTILIZING RADAR RAINFALL INFORMATION. (O3-011)  
*Efrat Morin*

16h00-16h15: USING RADAR OBSERVATIONS FOR HBV RAINFALL-RUNOFF SIMULATIONS. (O3-012)  
*Barbro Johansson, Jonas Olsson, Günther Haase*

16h15-16h30: PREDICTION AND MANAGEMENT OF FLASH FLOODS IN URBAN AREAS: THE URBAS PROJECT. (O3-013)  
*Thomas Einfalt, Fritz Hatzfeld, Andreas Wagner, Seltmann Joerg*

16h30-17h00: Coffee break

17h00-17h15: THE RELEVANCE OF ATTENUATION CORRECTED X- AND C-BAND DATA FOR REAL-TIME APPLICATIONS. (O3-014)  
*Hans-Reinhard VERWORN, Norbert JARDIN, Frederik KÖHLER, Stefan KRÄMER*

17h15-17h30: IMPROVING FLOOD FORECASTING BY COUPLING WEATHER RADAR QPE WITH DISTRIBUTED HYDROLOGICAL MODELS. (O3-015)  
*Yangbo Chen, Qiwei Ren, Jin Han*

17h30-17h45: TESTING RADAR RAINFALL ESTIMATES IN A FLOOD FORECASTING OPERATIONAL SYSTEM. (O3-017)  
*Pier Paolo Alberoni, Silvano Pecora, Fabrizio Tonelli, Anna Fornasiero*

**17h45-18h00: Summary and conclusions; Announcement of the next edition**  
**18h00: End of the Grenoble Conference**

**18h30-20h30: Transfer of the workshop attendees from Grenoble to the “Escandille” venue in Autrans (bus).**