

Urban flood modelling using probabilistic radar rainfall ensembles (EPSRC-funded Project)

The aim of this [EPSRC](#)-funded research is to develop a probabilistic urban flood forecasting system that integrates information from radar, raingauges, atmospheric observations and Numerical Weather Prediction (NWP) models for the real-time prediction and management of severe storms affecting urban areas.

Presentations

Liguori S., Rico-Ramirez M.A. "[Probabilistic forecasts based on radar rainfall uncertainty](#)", RCUK Water Research Showcase. The Wellcome Trust Collection Conference Centre, London, UK, March, 2012.

Liguori S., Rico-Ramirez M.A. "[Hydrological applications of probabilistic radar rainfall forecasts](#)", Queens School Research Seminar, University of Bristol, Bristol, UK, November 2011.

Liguori S., Rico-Ramirez M.A. "[Probabilistic radar rainfall forecasts for flow predictions in urban catchments](#)", Gauge-radar merging workshop, Met Office, Exeter, UK, November 2011.

Liguori S., Rico-Ramirez M.A. "[Probabilistic radar rainfall forecasts for flow predictions in urban catchments](#)", Radar meeting. Yorkshire Water, Bradford, UK, September 2011.

Liguori S., Rico-Ramirez M.A. "[Short-term hybrid forecasts blending NWP rainfall forecasts and radar nowcasts for probabilistic flow predictions](#)", HEPEX International Workshop on Post-processing and Verification of hydrological ensemble predictions. UNESCO-IHE, Delft, the Netherlands, June 2011.

Liguori S., Rico-Ramirez M.A., Schellart A., Saul A. "[High-resolution ensemble rainfall forecasts in urban hydrological applications](#)", European Geosciences Union (EGU) General Assembly. Vienna, Austria, April 2011.

Liguori S., Rico-Ramirez M.A. "[Probabilistic forecasting of rainfall from radar nowcasting and hybrid systems](#)", Weather Radar and Hydrology (WRaH) International Symposium. Exeter, UK, April, 2011.

Publications

Liguori, S & Rico-Ramirez, MA. 'Quantitative assessment of short-term rainfall forecasts from radar nowcasts and MM5 forecasts', *Hydrological Processes*, **in press**, (pp. -), 2012. [10.1002/hyp.8415](https://doi.org/10.1002/hyp.8415)

Liguori, S & Rico-Ramirez, MA. '[Probabilistic forecasts based on radar rainfall uncertainty](#)', *EGU General Assembly*, *Geophysical Research Abstracts*, **14**, EGU2012-528, (pp. -), 2012.

Liguori, S, Rico-Ramirez, MA, Schellart, A & Saul, A. '[High-resolution ensemble rainfall forecasts in urban hydrological applications](#)', *EGU General Assembly*, *Geophysical Research Abstracts*, **13**, EGU2011-373, (pp. -), 2011.

Liguori, S, Rico-Ramirez, MA

'Probabilistic forecasting of rainfall from radar nowcasting and hybrid systems', *IAHS Redbook Publication*, **351 (in press)**, (pp. -), 2011.

Collaborations

Schellart A, Ochoa, S, Simoes, N., Wang, L-P, Rico-Ramirez, MA, Liguori, S, Duncan, A, Chen, A.S., Keedwell, E., Djordjevic, S., Savic, D.A., Saul, A & Maksimovic, C. '[Urban pluvial flood modelling with real time rainfall information ? UK case studies](#)', 12nd International Conference on Urban Drainage, Porto Alegre/Brazil, 10-15 September 2011, (pp. -), 2011.

Schellart A, Liguori S, Kramer S, Saul A & Rico-Ramirez, MA 'Analysis of different quantitative precipitation forecast methods for run off and flow prediction in a small urban area', *IAHS Redbook Publication*, **351 (in press)**, (pp. -), 2011.

Wang LP, Simões N, Rico-Ramirez MA, Ochoa S, Leitão J & Maksimović C "Radar-based pluvial flood forecasting over urban areas: Redbridge case study", *IAHS Redbook Publication*, **351 (in press)**, (pp. -), 2011.