INTERNATIONAL WORKSHOP ON URBAN PLUVIAL FLOOD MODELLING

Monday 6th October 2014, 9:15 a.m. to 5:30 p.m.

Met Office, FitzRoy Road, Exeter, Devon, EX1 3PB, UK – Conference Room 2

09:15 – 09:45: Arrival, coffee and tea

09:45 – 09:50: Welcome & Introduction – Susana Ochoa (Researcher, Imperial College London), Crystal Moore (Head of Flood Forecasting Centre) & Katie Norman (Radar Products R&D Manager, Met Office)

09:55 – 10:00: Overview of the RainGain project – Marie-Claire ten Veldhuis (Project Coordinator), TU Delft

10:00 – 11:30: Session 1* - Approaches to the modelling of urban storm water drainage systems and urban pluvial flooding *(Session Chair: Dr Marie-Claire ten Veldhuis, TU Delft, NL)*

- Fully-distributed vs. Semi-distributed urban drainage models – Rui Pina & Susana Ochoa-Rodríguez, Imperial College London, UK
- Multi-Hydro: A multi-component physically-based model for detailed urban pluvial flood modelling – Daniel Schertzer, École des Ponts PariTech, France
- Application of a three-dimensional unstructured-mesh finite-element urban pluvial flooding model and comparison with two-dimensional approaches - Ting Zhang, Imperial College London, UK
- 3Di: High resolution surface water and sewer flow model: an application to the city of Amsterdam - Wytze Schuurmans, Nelen & Schuurmans B.V., The Netherlands

11:30 – 11:45: Coffee break

11:45 – 12:55: Session 2* - Approaches and techniques for rapid urban pluvial (surface water) flood modelling *(Session Chair: Johan Van Assel, Aquafin, BE)*

- 1D, 2D and hybrid surface flow models - Nuno Simões, University of Coimbra, Portugal & Damian Murlà Tuyls, KU Leuven, Belgium
- Formulation of a fast 2D urban pluvial flood model using a cellular automata approach – Albert Chen, University of Exeter, UK
- A flexible hydrodynamic modelling framework for GPUs and CPUs: Application to urban flood events – Luke Smith, Newcastle University, UK

12:55 – 13:45: Lunch

13:45 – 15:15: Session 3* - Urban drainage/pluvial flood model calibration, verification and uncertainty estimation *(Session Chair: Susana Ochoa-Rodriguez, Imperial College London, UK)*

- Good practices for enhancing the verification process – Alex Grist, Richard Allitt Associates, UK
- Model uncertainty analysis by variance decomposition - Patrick Willems, KU Leuven, Belgium
- How can statistics help us to get reliable predictions despite model bias? – Dario Del Giudice, Eawag & ETH Zurich, Switzerland
- Real time calibration of urban drainage models – Soren Thorndahl, Aalborg University, Denmark

15:15 – 15:30: Coffee break

15:30 – 17:00: Session 4* - Operational urban pluvial flood models for real time applications *(Session Chair: Graeme Boyce, Flood Forecasting Centre, UK)*

- Experiences and challenges in the implementation of InfoWorks ICM Live for real time surface water flood forecasting in Leuven, Belgium – Stefan Kroll, Aquafin, Belgium
- Real time modelling of sewer systems in London – William Neale, Thames Water, UK
- Real-time operational system for surface water management in the Bièvre Valley, Île-de-France – Laurent Monier, Veolia DTP
- Surface water flood forecasting and guidance in the UK – Jon Millard, Flood Forecasting Centre, UK

17:00 – 17:30: Conclusions & Close

17:40 – 19:00: Guided tour to the Flood Forecasting Centre

**Talks will be 15 min long and there will be a 30 min interactive discussion at the end of each session*