



DETAILED PROGRAMME

Wednesday 4th September 2013

14:00-22:00 **REGISTRATION (Holland Hall)**

17:00-18:30 **WELCOME RECEPTION (Forum)**

Thursday 5th September 2013 early morning

8:00-9:00 **REGISTRATION (Peter Chalk)**

9:00-10:35 **OPENING CEREMONY & KEYNOTE LECTURES (Newman A)**

Chair: David Butler

9:00-9:10 Introduction

Professor David Butler, ICFR Co-Chair

9:10-9:25 Welcome address

Professor Sir Steve Smith, Vice-Chancellor of the University of Exeter

9:25-10:00 Taiwan experience in governance of climate change and aggravated natural disasters

Dr Hong-Yuan Lee, Taiwan Minister of the Interior and Professor at the National Taiwan University

10:00-10:35 Research highlights from CORFU

Dr Ole Mark, Head of Research and Development at DHI

10:35-11:00 **TEA & COFFEE (Hall 2)**

Thursday 5th September 2013 late morning

11:00-12:40	<p>Session A1: URBAN DEVELOPMENT AND FLOOD RISK MANAGEMENT PLANS (Hall 1.1-3) Chair: Richard Dawson</p> <p>11:00-11:20 Developing business-as-usual scenarios for the urban growth of four Asian megacities (p. 3)* <i>William Veerbeek, Chris Zevenbergen</i></p> <p>11:20-11:40 Towards a decision support tool for adaptive flood risk management in an urban catchment (p. 5) <i>Suleman Shaikh, Stefan Kurzbach, Natasa Manojlovic</i></p> <p>11:40-12:00 The relationship between flood probability and the environmental transformation efficiency of urban development (p. 7) <i>Hsiang-Leng Chen, Hsing-Fu Kuo, Ko-Wan Tsou</i></p> <p>12:00-12:20 A theory of 5R-layer framework for urban flood resilience – a basis for alternative planning practices, Dhaka case study (p. 9) <i>Fang-Yu Hu, David M. Khan</i></p> <p>12:20-12:40 An exploration of multifunctional flood defences with an emphasis on flexibility (p. 11) <i>Flora Anvarifar, Chris Zevenbergen, Wil Thissen</i></p>
11:00-12:40	<p>Session B1: FLOOD HAZARD MAPPING (Hall 1.4-6) Chair: Taisuke Ishigaki</p> <p>11:00-11:20 Thinking big: national scale flood mapping (p. 63) <i>Yong Wang, Luke Lovell, Jon Wicks</i></p> <p>11:20-11:40 Real-time flood risk mapping for warning decision support (p. 65) <i>Jiun-Huei Jang, Chen-Yi Chen, Keh-Chia Yeh, Su-Chin Chen, Horng-Yue Chen, Liang-Chun Chen</i></p> <p>11:40-12:00 Real-time hazard impact modelling of surface water flooding: Some UK developments (p. 67) <i>Steven J. Cole, Robert J. Moore, Timothy Aldridge, Andy Lane, Stefan Laeger</i></p> <p>12:00-12:20 Urban flood inundation in Mumbai (p. 69) <i>Arun Rana, Justine Hénonin, Lars Bengtsson, Ole Mark</i></p> <p>12:20-12:40 Breach risk evaluation of the railway embankment between Arles and Tarascon, France (p. 71) <i>Mark Cheetham</i></p>
11:00-12:40	<p>Session D1: ADVANCES IN HYDROLOGICAL MODELLING (Newman C) Chair: Brian Golding</p> <p>11:00-11:20 Statistical downscaling methods for climate change impact assessment on rainfall for cities in tropical developing countries – a review (p. 165) <i>Seith Mugume, Diego Gomez, David Butler</i></p> <p>11:20-11:40 Analysis of Beijing rainfall patterns, based on 68 years of rainfall data (p. 167) <i>Yuwen Zhou, Zilong Liu, Shanshan Liu, Yaoyao Weng, Ying Tang</i></p> <p>11:40-12:00 Comparison of different radar-gauge merging techniques (p. 169) <i>Nergui Nanding, Miguel Angel Rico-Ramirez, Dawei Han</i></p> <p>12:00-12:20 Hydrological modelling for simulation of flooding from extreme events in Jamaica – case study of the Hope River watershed (p. 171) <i>Arpita Mandal, Lawrence Barrett, David Smith</i></p> <p>12:20-12:40 Extreme precipitation for Jamaica: 1895 to 2100 (p. 173) <i>Christopher P. Burgess, Michael A. Taylor, Tannecia Stephenson, Arpita Mandal</i></p>

* Page in the proceedings book

12:40-13:30 LUNCH (Hall 2)

13:30-14:00 Posters D2: FLOOD FORECASTING (Hall 2)

Moderator: Dawn Harrison

Warning strategy, techniques and new developments at the Flood Forecasting Centre (p. 175)
Charlie Pilling, David Price, Steve Ramsdale, Holly Denning, Kathryn Smith, Matt Winter, Bob Moore, Mark van Dijk

Using ensembles to represent uncertainty in UK radar rainfall estimates: some initial findings (p. 177)
David Duffton, Chris G. Collier

The use of radar, nowcast and numerical weather prediction in rainfall runoff modelling in Scotland (p. 179)
Rachel Geldart, Linda Speight, Mike Cranston, Richard Maxey, Amy Tavendale

A review of kriging based rain-gauge-radar merging techniques (p. 181)
Sharon Jewell, Nicolas Gaussiat

Probabilistic flood forecasting using high-resolution ensemble rainfalls over Britain (p. 183)
Adrian Wynn, Clive Pierce, Robert J. Moore, Steven J. Cole, David Price, Marion Mittermaier, Alan Seed

Hydrological value of low-cost X-band radars for heavy rain hazard assessment in urban areas: demonstration experiment in Barcelona (p. 185)
Daniel Sempere-Torres, Marc Berenguer, Monika Pfeifer

Comparison of the Met Office conventional and experimental NWP based nowcasting of precipitation for flash flood events during summer 2012 (p. 187)
Susan P Ballard, Clive Pierce, David Simonin, Nigel Roberts, Zhihong Li

13:30-14:00 Posters D3: ADVANCES IN FLOOD MODELLING (Hall 2)

Moderator: Dong-Sin Shih

Evaluation of satellite-based extreme precipitation estimates for flood risk modelling (p. 199)
Bastian Manz, Wouter Buytaert, Juan Pablo Rodriguez Sanchez

Understanding the hydraulic state and drainage capacity of a stormwater system through modelling (p. 201)
Yuwen Zhou, Hongli Wang, Jian Zhao, Ying Tang, Chang Liu

Urban flood modelling using cloud computing (p. 203)
Vassilis Glenis, Vedrana Kutija, Chris Kilsby, Andrew McGough, Simon Woodman

Flood routing using alternative approach of neural network for a flood warning system (case study: Madarsou River, Iran) (p. 205)
Ahmad Tahershamsi, Farhad Hooshyaripor, Hosein Ghalkhani, Abdollah Ardeshir

Flood control operation of reservoir systems using system dynamics-based simulation optimization (p. 207)
M. Hosseini, S. Jamshid Mousavi, Abdollah Ardeshir, Kourosh Behzadian

MH-AssimTool: An assimilation tool dedicated to a fully distributed model (p. 209)
Julien Richard, Agathe Giangola-Murzyn, Daniel Schertzer, Ioulia Tchiguirinskaia

Case study of dam breach and flood analysis (p. 211)
Suk-Hwan Jang

Thursday 5th September 2013 early afternoon

14:00-15:40	<p>Session A2: FLOOD RISK UNDER CLIMATE CHANGE AND GROWTH SCENARIOS (Hall 1.1-3) Chair: Karsten Arnbjerg-Nielsen</p> <p>14:00-14:20 Assessing flood risk in London under climate and land use change (p. 21) <i>Claire L. Walsh, Richard J. Dawson, Stuart L. Barr, Alistair C. Ford, Jim W. Hall, Mike Batty</i></p> <p>14:20-14:40 Informing long term planning decisions – scenario analysis for future flood management in the Taihu Basin, China (p. 23) <i>Jon Wicks, Chaoqing Yu</i></p> <p>14:40-15:00 Flood hazard assessment considering climate change impacts – application to Barcelona case study using a 1D/2D detailed coupled model (p. 25) <i>Beniamino Russo, Marc Velasco, David Suñer</i></p> <p>15:00-15:20 Scenarios for long-term economic city growth – models and results for selected CORFU case studies (p. 27) <i>Friso Schlitte</i></p> <p>15:20-15:40 Multiple linked SUDS in hydrological modelling for urban drainage and flood management (p. 29) <i>Sandra Hellmers, Stefan Kurzbach, Natasa Manojlovic, Giovanni Palmaricciotti</i></p>
14:00-15:40	<p>Session B1: FLOOD HAZARD MAPPING (Hall 1.4-6) Chair: Dušan Prodanović</p> <p>14:00-14:20 Sharing UK LIDAR and flood mapping experience with the Philippines (p. 73) <i>Alastair Duncan, Patrick Hogarth, Enrico Paringit, Mahar Lagmay</i></p> <p>14:20-14:40 The role of the second embankment line in flood defence – case study of Novi Sad (p. 75) <i>Matija Stipić, Srđan Kolaković, Rihard Šranc, Dula Fabian, Ljubomir Budinski</i></p> <p>14:40-15:00 Vulnerability analysis for addressing pluvial flood risk in a densely urbanized area in Osaka (p. 77) <i>Taira Ozaki, Taisuke Ishigaki, Norihiro Asano, Keiichi Toda</i></p> <p>15:00-15:20 Predicting private sewer collapse to help utilities manage flooding and pollution events (p. 79) <i>Ben Ward, Andrew Selby, Simon Gee, Dragan A. Savić</i></p> <p>15:20-15:40 Flood inundation mapping of Surat City: a prospective view of flood return period (p. 81) <i>Dhruvesh Patel</i></p>
14:00-15:40	<p>Session C1: EVALUATION OF FLOOD RESILIENCE MEASURES (Newman C) Chair: Adrian Cashman</p> <p>14:00-14:20 Methodology for maturity of flood risk management frameworks assessment – application to Asian and European cities (p. 105) <i>Jelena Batica, Philippe Gourbesville, Franck Tessier</i></p> <p>14:20-14:40 Assessing quick-wins to protect critical urban infrastructure from floods: A case study (three urban communities) in Bangkok, Thailand (p. 107) <i>Chris Zevenbergen, Khanitta Iam-la-or Kolaka, Sebastiaan van Herk, Manuela Escaraméia, Berry Gersonius, Damien Serre, Nicholas Walliman, Karin de Bruijn, Rutger de Graaf</i></p> <p>14:40-15:00 Assessing the effects of flood resilience technologies (p. 109) <i>Sebastian Golz, Reinhard Schinke, Thomas Naumann, Stephen Garvin, Iain White</i></p> <p>15:00-15:20 On the flood and inundation management of Ho Chi Minh City, Viet Nam (p. 111) <i>Ruben Dahm, Ferdinand Diermanse, Ho Long Phi</i></p> <p>15:20-15:40 A review of flood resilience in Fiji (p. 113) <i>Stephen Yeo</i></p>
15:40-16:00	<p>TEA & COFFEE (Hall 2)</p>

Thursday 5th September 2013 late afternoon and evening

16:00-18:00	<p>Session A3: POLICY INSTRUMENTS AND GOVERNANCE ISSUES (Hall 1.1-3) Chair: Chris Zevenbergen</p> <p>16:00-16:20 Integrating innovative flood resilience measures: Lessons from Europe (p. 41) <i>Stephen Garvin, Iain White, Paul A. O'Hare, Angela Connelly, Nigel Lawson</i></p> <p>16:20-16:40 How science and technology support the decision making in response to typhoons in Taiwan (p. 43) <i>Wei-Sen Li, Liang-Chun Chen, Lee-Yaw Lin</i></p> <p>16:40-17:00 Learning and action alliances for innovation and active learning in a European context (p. 45) <i>Elizabeth Dudley, Richard Ashley, Natasa Manojlovic, Sebastiaan van Herk, John Blanksby</i></p> <p>17:00-17:20 Resilience to flooding – draft building code (p. 47) <i>John D. Clarkson, Kenton Braun, Angela Desoto-Duncan, Graeme Forsyth, Jarit G. de Gijt, Nils P. Huber, Dale Miller, Philippe Rigo, David Sullivan</i></p> <p>17:20-17:40 The status of stormwater governance in Barbados (p. 49) <i>Jenna Blackwood, Adrian Cashman</i></p> <p>17:40-18:00 Actions for improving the Science-Policy Interface for flood risk management (p. 51) <i>Mark Morris, Derk van Ree, Karin Stone</i></p>
16:00-18:00	<p>Session B2: ASSESSMENT OF LOSSES IN FLOOD RISK ANALYSIS (Hall 1.4-6) Chair: Heidi Kreibich</p> <p>16:00-16:20 A spatial analysis of rainfall damage data using C-band weather radar images (p. 91) <i>Matthieu Spekkers, Matthijs Kok, Francois Clemens, Marie-claire ten Veldhuis</i></p> <p>16:20-16:40 Flood damage assessment for urban growth scenarios (p. 93) <i>Albert S. Chen, Michael J. Hammond, Slobodan Djordjević, David Butler</i></p> <p>16:40-17:00 Estimating damage costs of urban pluvial flooding as a means of improving climate change adaptation investments (p. 95) <i>Anders Skovgård Olsen, Qianqian Zhou, Karsten Arnbjerg-Nielsen, Jens Jørgen Linde</i></p> <p>17:00-17:20 Flood damage assessment of Yizhuang, Beijing (p. 97) <i>Yuwen Zhou, Zilong Liu, Shanshan Liu, Jian Zhao, Wei Li, Jing Zhang</i></p> <p>17:20-17:40 Correlations between rainfall data and insurance damage data related to sewer flooding for the case of Aarhus, Denmark (p. 99) <i>Matthieu Spekkers, Qianqian Zhou, Karsten Arnbjerg-Nielsen, Francois Clemens, Marie-claire ten Veldhuis</i></p> <p>17:40-18:00 Flood impact assessment under climate change scenarios in central Taipei area, Taiwan (p. 101) <i>Ming-Hsi Hsu, Chih-Hung Chen, Chia-Hsiu Chang, Wen-Cheng Liu, Tsang-Jung Chang, Yi-Chieh Lin, Albert S. Chen, Michael J. Hammond, Slobodan Djordjević, David Butler</i></p>
16:00-18:00	<p>Session C1: EVALUATION OF FLOOD RESILIENCE MEASURES (Newman C) Chair: Marc Erlich</p> <p>16:00-16:20 Flood resilience study for Mithi river catchment in Mumbai, India (p. 115) <i>Vinay Nikam, Kapil Gupta</i></p> <p>16:20-16:40 Sustainable flood memories, informal knowledges and the development of community resilience to future flood risk (p. 117) <i>Lindsey McEwen, Joanna Garde-Hansen, Owain Jones, Franz Krause, Andrew Holmes</i></p> <p>16:40-17:00 Use of new digital technology to enhance community resilience to floods (p. 119) <i>Sue Tapsell, Simon McCarthy, Rosalind McDonagh, Vitaveska Lanfranchi</i></p> <p>17:00-17:20 Methodology for flood resilience index (p. 121) <i>Jelena Batika, Philippe Gourbesville, Fang-Yu Hu</i></p> <p>17:20-17:40 Freeboard design as a technical precondition for flood resilience (p. 123) <i>Reinhard Pohl</i></p> <p>17:40-18:00 Disruption of resource movements from flooding (p. 125) <i>Shaun A. Brown, Richard Dawson</i></p>
19:00-21:00	BARBEQUE (Reed Hall)

Friday 6th September 2013 morning

9:00-10:35	KEYNOTE LECTURES & THE CORFU MOVIE (Newman A) <i>Chair: M. Monowar Hossain</i>
9:00-9:35	Flood insurance and flood resilience <i>Professor Annegret Thieken, University of Potsdam</i>
9:35-10:10	2011 flood in Thailand and HAI IT development to cope with future floods <i>Dr Royol Chitradon, Director of the Hydro and Agro Informatics Institute in Bangkok</i>
10:10-10:35	"Resilience", the CORFU movie <i>Franck Tessier, University of Nice Sophia Antipolis</i>
10:35-11:00	TEA & COFFEE (Hall 2)
11:00-12:40	Session C2: RESILIENT CITIES (Hall 1.1-3) <i>Chair: Manuela Escarameia</i>
11:00-11:20	A multi-layer flood safety approach towards resilient cities (p. 145) <i>Johannes Leskens, Marcel Boomgaard, Conny van Zuijlen, Peter Hollanders</i>
11:20-11:40	CORFU project experience from the rapidly developing city of Dhaka, Bangladesh (p. 147) <i>S. M. Mahbubur Rahman, David M. Khan, Abu Saleh Khan, M. Monowar Hossain</i>
11:40-12:00	Surface water flood warnings in England: An overview, assessment and recommendations based on survey responses and workshops (p. 149) <i>Susana Ochoa-Rodriguez, Laurie Thraves, Andy Johnston</i>
12:00-12:20	Building urban resilience with flood defense and critical infrastructure network assets (p. 151) <i>Damien Serre, Mireia Balsells</i>
12:20-12:40	Monitoring SUDS at Lamb Drove, Cambridgeshire (p. 153) <i>Richard Stevens, Fola Ogunyoye</i>
11:00-12:40	Session D2: FLOOD FORECASTING (Hall 1.4-6) <i>Chair: Robert J. Moore</i>
11:00-11:20	Ensemble model water level forecasts for the lower Mekong (p. 189) <i>Lan Yu, Lloyd H. C. Chua</i>
11:20-11:40	Striving for sufficient lead time of flood forecasts via integrated hydro-meteorological intelligence (p. 191) <i>Dong-Sin Shih, Cheng-Hsin Chen</i>
11:40-12:00	Getting started with urban flood modelling for real-time pluvial flood forecasting: a case study with sparse data (p. 193) <i>Jeanne-Rose René, Slobodan Djordjević, David Butler, Henrik Madsen, Ole Mark</i>
12:00-12:20	Identification of uncertainty sources in flood forecasting (p. 195) <i>Niels Van Steenbergen, Patrick Willems, Maarten Deschamps</i>
12:20-12:40	Establishment and application of urban area early warning system for short-duration heavy rainfall (p. 197) <i>Sheng-Hsueh Yang, Wei-Chu Weng, Yung-Chia Hsu, Keh-Chia Yeh, Shenq-Yuh Jaw, Meng-Chi Hung</i>
11:00-12:40	Session D4: ANALYSIS OF URBAN FLOODING (Newman C) <i>Chair: Tsang-Jung Chang</i>
11:00-11:20	Influence of wind-driven rain on the hydrologic response of urban areas: a physical model (p. 231) <i>Jorge M. G. P. Isidoro, João L. M. P. de Lima</i>
11:20-11:40	Surface drainage system efficiency and its impact on pluvial flooding: a physically-based stochastic approach (p. 233) <i>Anna Palla, Giuseppe T. Aronica, Iliaria Gnecco, Luca G. Lanza</i>
11:40-12:00	100 year flood simulation for Dhaka City using multiple models (p. 235) <i>Ismat Pervin, M. Feroz Islam, Imtiaz Taher, David Khan</i>
12:00-12:20	Machine learning-based early warning system for urban flood management (p. 237) <i>Andrew P. Duncan, Edward C. Keedwell, Slobodan Djordjević, Dragan A. Savić</i>
12:20-12:40	Adaptive evacuation planning for flood risk management (p. 239) <i>Bas Kolen</i>

Friday 6th September 2013 lunch time

12:40-13:30 LUNCH (Hall 2)

13:30-14:00 Posters E1: SHARED LESSONS FROM ASIA AND EUROPE (Hall 2)

Moderator: Nina Sto. Domingo

Flood preparedness of private households and businesses – a comparison between Vietnam and Germany (p. 249)

Chinh Do, Heidi Kreibich

Comparative analysis of flooding in Gothenburg, Sweden and Mumbai, India: a review (p. 251)

Johanna Sörensen, Arun Rana

Flood control of an overpass in downtown Beijing (p. 253)

Yuwen Zhou, Jian Zhao, Zilong Liu, Wei Li, Jing Zhang, Ying Tang

Modelling the effects of tsunami-induced forces on building facades (p. 255)

Jorge M. G. P. Isidoro, João M. C. Estêvão

Water circulation study for the development of Songdo waterfront canal system (p. 257)

Dongwoo Jang, Cristina Agafon, Gyewoon Choi

Community led model of flood resilient, sustainable shelter construction in Sindh Province, Pakistan (p. 259)

Bee Rowan

13:30-14:00 Posters A1: URBAN DEVELOPMENT AND FLOOD RISK MANAGEMENT PLANS (Hall 2)

Moderator: Christopher Hutton

Super levees along the Arakawa river in Tokyo: Evaluation from the viewpoint of spatial planning in a low-lying area (p. 13)

Hitoshi Nakamura, Takaaki Kato, Yuto Shiozaki

Using satellite imagery to assess the influence of recent urban development on the impacts of extreme rainfall (p. 15)

Per Skougaard Kaspersen, Martin Drews, Karsten Arnbjerg-Nielsen, Henrik Madsen

Flood risk management framework and strategies for sustainable flood management (p. 17)

Ick Hwan Ko, Min Goo Kang, Sung Je Park

Sewerage system flood control adapted to environmental change in Yokohama City (p. 19)

Hiroaki Mutou, Yoshio Kurobane, Toru Meguro, Shuhei Okuno

13:30-14:00 Posters A2: FLOOD RISK UNDER CLIMATE CHANGE AND GROWTH SCENARIOS (Hall 2)

Moderator: Michael J. Hammond

Two fiscal front-runners: Will their economies crumble due to the lack of flood resilience? (p. 31)

Komali Kantamaneni, Michael Phillips

A study of the Beijing intensity-duration-frequency curves (p. 33)

Yuwen Zhou, Ying Tang, Jian Zhao, Hongli Wang, Chang Liu

Automated model-based flood risk mapping for future scenarios of urban growth and climate change (p. 35)

Stefan Kurzbach, Natasa Manojlovic, Sandra Hellmers

Estimating and mapping the total economic costs from storm surges in Wilhelmsburg/Hamburg (p. 37)

Julia Kowalewski, Gehad Ujeyl

MRI-AGCM 3.2s precipitation based flood damage assessment study for Lower West Rapti River Basin in Nepal (p. 39)

Edangodage Duminda Pradeep Perera, Akiko Hiroe, Dibesh Shrestha, Kazuhiko Fukami, Divas Bahadur Basnyat, Surendra Gautam, Akira Hasegawa, Toshiya Uenoyama, Shigenobu Tanaka

Friday 6th September 2013 afternoon and evening

14:00-15:20	<p>Session A4: FLOOD RISK PERCEPTION (Hall 1.1-3) Chair: Sue Tapsell</p> <p>14:00-14:20 Communicating uncertainty in flood risk messages – understanding and risk perception (p. 53) <i>Ailsa Strathie, Gina Netto, Guy Walker, Gareth Pender</i></p> <p>14:20-14:40 Exploring preparedness consciousness in Wilhelmsburg (Hamburg): Is the risk 'real' to the people on the Elbeinsel? (p. 55) <i>Sharon Birkholz, Paul Jeffrey</i></p> <p>14:40-15:00 Evaluation of a specific action to encourage people at risk of flooding to adapt their behaviour (p. 57) <i>Julien Jadot, Isabelle Richard, Nicolas Bauduceau, Karine Weiss, Anne-Laure Moreau, Rodolphe Pannier</i></p> <p>15:00-15:20 The value of partnership working during flood recovery: Done with or done to? (p. 59) <i>Alison McNulty, Kimberley Rennick</i></p>
14:00-15:20	<p>Session C2: RESILIENT CITIES (Hall 1.4-6) Chair: Stephen Garvin</p> <p>14:00-14:20 Flood preparedness of private households and small businesses in the Mekong Delta, Vietnam (p. 155) <i>Heidi Kreibich, Philip Bubeck, Chinh Do</i></p> <p>14:20-14:40 Public attitudes towards flooding and property level flood protection measures (p. 157) <i>Seth Owusu, Grant Wright, Scott Arthur</i></p> <p>14:40-15:00 Urban design contribution to neighbourhood flood resilience: Proposition of a model analysis (p. 159) <i>Mireia Balsells, Bruno Barroca, Youssef Diab, Vincent Becue, Damien Serre</i></p> <p>15:00-15:20 Effectiveness of flood resilience measures for Incheon Gyo watershed in Korea (p. 161) <i>Lian Guey Ler, Gyewoon Choi, Seong Joon Byeon</i></p>
14:00-15:20	<p>Session D3: ADVANCES IN FLOOD MODELLING (Newman C) Chair: Kapil Gupta</p> <p>14:00-14:20 Experimental study on floating cars in flood water (p. 213) <i>Keiichi Toda, Taisuke Ishigaki, Taira Ozaki</i></p> <p>14:20-14:40 Towards the development of a decision support system for flood management in Chao Phraya river basin, Thailand (p. 215) <i>Piyamarn Sisomphon, Surajate Boonya-aroonnet, Somchai Chonwattana, Finn Hansen</i></p> <p>14:40-15:00 A flexible hydrodynamic modelling framework for GPUs and CPUs: Application to the Carlisle 2005 floods (p. 217) <i>Luke S. Smith, Qiyuhua Liang, Paul F. Quinn</i></p> <p>15:00-15:20 Dam break waves as extreme flood events (p. 219) <i>Antje Bornschein</i></p>
15:30-18:30	<p>TECHNICAL AND CULTURAL VISITS</p> <p>Visit to EA/Met Office Flood Forecasting Centre <i>Lead: Michael Hammond and Jeanne-Rose Renee</i></p> <p>Visit to South West Water Control Centre <i>Lead: Peter Melville-Shreeve</i></p> <p>Exeter Red Coat Guided Tour <i>Lead: Miriam Garcia</i></p> <p>Visit to Exeter Museum <i>Lead: Andrew Duncan</i></p>
19:00-21:00	CONFERENCE DINNER (Holland Hall)
21:15-22:15	CONCERT IN MEMORY OF ERIK PASCHE (Holland Hall)

Saturday 7th September 2013 morning

9:00-10:35	KEYNOTE LECTURE & SESSION D4: ANALYSIS OF URBAN FLOODING (Newman C) <i>Chair: Marie-claire ten Veldhuis</i>
9:00-9:35	Resilient cities – resilient products: A manufacturer’s perspective <i>Martin Fairley, Research Director at ACO Technologies plc</i>
9:35-9:55	Flood vulnerability assessment considering climate change impacts: Application to Barcelona case study using relative depth-damage curves (p. 241) <i>Marc Velasco, Angels Cabello, Beniamino Russo, Teresa Kersting</i>
9:55-10:15	Extreme hazard of pluvial and tsunami floods in a densely urbanized area (p. 243) <i>Taisuke Ishigaki, Norihiro Asano, Masayuki Morikane, Taira Ozaki, Keiichi Toda</i>
10:15-10:35	Back to the future: Assessing the impact of the 2004 flood in Dhaka in 2050 under massive urban growth (p. 245) <i>David M. Khan, Imtiaz Taher, William Veerbeek, Albert S. Chen, Michael J. Hammond, Slobodan Djordjević, David Butler</i>

10:35-11:00	TEA & COFFEE (Hall 2)
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11:00-12:40	Session D3: ADVANCES IN FLOOD MODELLING (Hall 1.1-3) <i>Chair: Albert S. Chen</i>
11:00-11:20	Comparing topography discretization techniques for Godunov-based shallow flow models (p. 221) <i>Georges Kesserwani</i>
11:20-11:40	Comparison of numerical schemes for modelling supercritical flows along urban floodplains (p. 223) <i>Yared A. Abebe, Zoran Vojinović, Solomon D. Seyoum, Roland K. Price</i>
11:40-12:00	Prediction of overbank flows with a coupled 1D flash flood routing model and 3D coastal ocean model (p. 225) <i>Wen-Cheng Liu, Chung-En Chung, Ming-Hsi Hsu</i>
12:00-12:20	Well balanced Roe scheme applied to a local inertia overland flow model (p. 227) <i>Ricardo Martins, Jorge Leandro, Slobodan Djordjević</i>
12:20-12:40	Implementation and assessment of a critical input hyetograph generation methodology for use in a decision support tool for the design of flood attenuation systems (p. 229) <i>Christopher Newton, Daniel Jarman, Fayyaz Ali Memon, Robert Andoh, David Butler</i>

11:00-12:40	Session E1: SHARED LESSONS FROM ASIA AND EUROPE (Hall 1.4-6) <i>Chair: Abdollah Ardeshir</i>
11:00-11:20	Performance of sustainable drainage for urban flood control, lessons from Europe and Asia (p. 261) <i>Carly Rose, Jessica Lamond</i>
11:20-11:40	Strategy to enhance community preparedness in flood resiliency: Bangladesh experience (p. 263) <i>M. A. Quassem, Md. Waji Ullah, Muhammad Shifuddin Mahmud, Mobasher Bin Ansari</i>
11:40-12:00	Thinking more broadly about flood resilience (p. 265) <i>Fola Ogunyoye, Nanco Dolman</i>
12:00-12:20	New guidelines for flood flow assessment at hydrologic stations in Serbia (p. 267) <i>Borislava Blagojević, Vladislava Mihailović, Jasna Plavšić</i>
12:20-12:40	Interaction between urban spatial organization and flood risk – Taipei case study (1895-1945) (p. 269) <i>Fang-Yu Hu, Nathalie Lancret, Gilles Hubert</i>

Saturday 7th September 2013 lunch time

12:40-13:30 LUNCH (Hall 2)

13:30-14:00 Posters B1: FLOOD HAZARD MAPPING (Hall 2)

Moderator: Jeanne-Rose René

Flood hazard mapping for the Lena River Basin, Russia (p. 83)
Dmitriy Botavin, Eugenia Fingert

Floodplain mapping of lowland area rivers by combination of GIS with depth-averaged 2D model (p. 85)
Mohammad Rostami, Abdollah Ardeshir, Sahar Habibi

Flood risk analysis and research of evacuation in flood disasters with GIS (p. 87)
Aichen Jia, Qing Zhang, Qian Yang

Statistical analysis of a Cellular Automata-based sewer flood model (p. 89)
Rebecca Austin, Albert S. Chen, Dragan A. Savić and Slobodan Djordjević

13:30-14:00 Posters C1: EVALUATION OF FLOOD RESILIENCE MEASURES (Hall 2)

Moderator: Jorge Leandro

Experiences of groundwater flooding, South Winterbourne Valley, Dorset (p. 127)
Charles Bennett, Brian Richards

Community-based activities for the large-scale flood hazard in a low-lying area: The case of Shinkoiwa in Tokyo (p. 129)
Takaaki Kato, Hitoshi Nakamura, Yuto Shiozaki

Coping with floods: preparedness, response and recovery of flood-affected residents in Germany after 2002 (p. 131)
Sarah Kienzler, Ina Pech, Heidi Kreibich, Meike Mueller, Annegret H. Thieken

A house is not a home – the importance of non-structural reconstruction in disaster recovery (p. 133)
Chuan-Zhong Deng

Strengthening and redesigning European flood risk practices (STAR-FLOOD): Towards appropriate and resilient flood risk governance arrangements (p. 271)
Dries Hegger, Peter Driessen, Carel Dieperink, Mark Wiering, Tom Raadgever, Marleen van Rijswijk

Urban flood mitigation by development of optimal detention ponds in urban areas: A case study (p. 135)
Abdollah Ardeshir, Kambiz Salari, Fatemeh Jaliliani, Kouros Behzadian, S. Jamshid Mousavi

Gathering evidence; the multiple benefits of SUDS and designing for exceedance (p. 137)
Adam Baylis, Paul Shaffer, Chris Digman, Richard Ashley, Elliot Gill

SMARTeST modelling toolkit for multiscale decision making on flood resilient technology (p. 139)
Natasa Manojlovic, Thomas Naumann, Reinhard Schinke, Antonis Toumazis, Ioulia Tchiguirinskaia, Agathe Giangola-Murzyn, Daniel Schertzer, José-Frédéric Deroubaix, Bruno Barocca, Matthieu Spekkers

Conceptual model of city resilience to large-scale flooding in a low-lying area in Tokyo (p. 141)
Yuto Shiozaki, Takaaki Kato, Hitoshi Nakamura

Study on Smart Water Grid in Korea: Stable water supply using rainwater harvesting for flood preparedness (p.143)
Woo Dalsik, Kim Seounghyun, Shin Sunghoon, Chae Sookwen, Jung Jongtae, Choi Gyecheon

Saturday 7th September 2013 afternoon

14:00-15:30	CLOSING SESSION (Newman C) Chair: Slobodan Djordjević
14:00-14:20	New projects and initiatives STARFLOOD – STrengthening And Redesigning European FLOOD risk practices (p. 271) <i>Dries Hegger</i> PEARL – Preparing for Extreme And Rare events in coastaL regions <i>Natasa Manojlovic</i> Global Flood Partnership (p. 273) <i>Jutta Thielen</i>
14:20-15:00	Plenary discussion <i>David Butler, Royol Chitradon, Martin Fairley, Hong-Yuan Lee, Ole Mark, Annegret Thieken</i>
15:00-15:10	ICFR Awards – The Best Young Author Prize, The Best Poster
15:10-15:20	Announcement of future events
15:20-15:30	Conference conclusions and actions and closing remarks <i>Slobodan Djordjević</i>
15:30-16:00	TEA & COFFEE (Hall 2)

