

Colloquium Programme

Gerhard H. Jirka Memorial Colloquium on Environmental Fluid Mechanics

Friday, June 3, 2011

8.00 – 9.00 Registration			
9.00 – 10.30	Opening Addresses		
	Detlef Löhe	<i>Vice President of KIT, Karlsruhe, Germany</i>	
	Noboyuki Tamai	<i>President of IAHR, Gakuin University, Japan</i>	
	Reflections on Gerhard Jirka's Scientific Contributions		
	Helmut Kobus	<i>University of Stuttgart, Stuttgart, Germany</i>	Gerhard Jirka and his contributions to German Water Research
	Johann Stocker	<i>Consorzio Venezia Nuova, Venice, Italy</i>	Safeguarding Venice – Advisory role of Professor Jirka
	Tobias Bleninger, Cornelia Lang	<i>IfH, KIT & Federal University of Paraná, Curitiba, Brazil</i>	Mixing and Transport Processes in Environmental Fluid Systems – Gerhard Jirka's scientific achievements
Coffee			
11.00 – 12.30	Shallow Flows		
	Wim Uijtewaal	<i>University of Technology Delft, The Netherlands</i>	Horizontal Mixing in Shallow Flows
	Mohamed Ghidaoui	<i>The Hong Kong University of Science & Technology</i>	Onset and Initial Development of Instabilities in Shallow Shear Flows
	Gert Jan van Heijst	<i>University of Technology Eindhoven, The Netherlands</i>	Laboratory Experiments on Shallow Flows
Lunch			

13.30 – 15.30	Ana Maria Ferreira da Silva	<i>Queen's University, Kingston, Canada</i>	Characteristic Scales and Dynamics of Large-Scale Horizontal Coherent Structures in Shallow Open-Channel Flows: an Experimental Investigation
	Greg A. Lawrence	<i>University of British Columbia, Canada</i>	Waves and Currents: Hawking Radiation in the Hydraulics Laboratory
	Fluvial Hydraulics		
	Fotis Sotiropoulos	<i>University of Minnesota, USA</i>	Turbulent Flow and Sediment Transport Phenomena in Natural Waterways: Insights gained by LES
	Giovanni Seminara	<i>University of Genova, Italy</i>	Progress in Tidal Morphodynamics
Coffee			
16.00 – 17.30	Peter Goodwin	<i>University of Idaho, USA</i>	Flow Structure and the Sustainability of Pools in Gravel-Bed Rivers
	Andreas Dittrich	<i>Universität Braunschweig, Germany</i>	Influence of Vegetation on Flow Resistance and Flow Field
	Vladimir Nikora	<i>University of Aberdeen, U.K.</i>	Flow-Biota Interactions in Aquatic Systems: Scales, Mechanisms, and Challenges
19.30 Conference Dinner			

Saturday, June 4, 2010

9.00 – 10.30	Small-scale Phenomena		
	Daoyi Chen	<i>University of Liverpool, U.K.</i>	Interaction of Flows and Particles in the Sub-Micrometer Scales
	Willi H. Hager	<i>VAW, ETH Zurich, Switzerland</i>	Environmental Aspects in Wastewater Hydraulics
	Alfred Wüest	<i>EAWAG, Switzerland</i>	Small scales in Natural Waters
Coffee			
11.00 – 12.30	Buoyant/Stratified Flows		
	Joseph Hun-wei Lee	<i>The Hong Kong University of Science and Technology</i>	Mixing of Multiple Buoyant Jets
	Harinda Joseph S. Fernando	<i>University of Notre Dame, Indiana, USA</i>	Jets, Plumes and Double Diffusion under Confinement! And their role in US Strategic Petroleum Reserves
	Peter Davies	<i>University of Dundee, U.K.</i>	Modelling Internal Solitary Waves in Shallow Stratified Fluids
Lunch			
13.30 – 15.30	Gravity Currents		
	Marcelo H. Garcia	<i>University of Illinois, Urbana-Champaign, USA</i>	Fluid Mechanics of Density Currents and Salt Wedges
	Gary Parker	<i>University of Illinois, Urbana-Champaign, USA</i>	Effect of Self-stratification due to Suspended Sediment: Rivers versus Turbidity Currents
	Johannes Bühler	<i>ETH Zurich, Switzerland</i>	Revisiting Gravity Currents and Free Shear Flows
	George Constantinescu	<i>University of Iowa, USA</i>	On the Effect of Drag on the Propagation of Compositional Gravity Currents
Coffee			
16.00 – 17.40	Mass Transfer		
	Bernd Jähne	<i>University of Heidelberg, Germany</i>	Gas Transfer at Water Surfaces
	John Gulliver	<i>University of Minnesota, USA</i>	Mass Transfer from Bubble Swarms
	Roger Falconer	<i>Cardiff University, U.K.</i>	Modelling Bacteria and Trace Metal Fluxes in Estuarine Systems
Closing of Colloquium			