

Programme

Monday, June 26th	
8:00-8:45	Registration
8:45-9:00	Opening
9:00-9:45	<p>Plenary talk Eckart Meiburg (UCSB, USA) <i>Double-diffusive sedimentation</i> (chair: GertJan van Heijst, Eindhoven University of Technology)</p>
9:50-10:50	Parallel Session 1A: Gravity Currents and Salt Intrusion Parallel Session 1B: Surface Waves
10:50-11:20	Coffee break
11:20-13:00	Parallel Session 2A: Gravity Currents and Salt Intrusion Parallel Session 2B: Numerical Techniques
13:00-14:00	Lunch
14:00-14:45	<p>Plenary talk Scott Socolofsky (Texas A&M University, USA) <i>Coherent structures, stability, and mixing at tidal Inlets</i> (chair: Matias Duran Matute, Eindhoven University of Technology)</p>
14:50-15:50	Parallel Session 3A: Vortices and Wakes Parallel Session 3B: Plumes
15:50-16:20	Coffee break
16:20-18:00	Parallel Session 4A: Vortices and Wakes Parallel Session 4B: Mixing Layers and Jets
18:00-19:00	Ice-breaker

Tuesday, June 27th	
9:00-9:45	<p>Plenary talk Peter Herman (Deltares, The Netherlands) <i>Coupling between vegetation, flow and morphodynamics: where are we and where do we go?</i> (chair: Pilar Garcia-Navarro, Universidad de Zaragoza)</p>
9:50-10:50	Parallel Session 5A: Vegetation and Roughness Parallel Session 5B: Effects of Stratification and Rotation
10:50-11:20	Coffee break
11:20-13:00	Parallel Session 6A: Vegetation and Roughness Parallel Session 6B: Sediment Transport and Morphodynamics
13:00-14:00	Lunch
14:00-14:45	<p>Plenary talk Huib de Swart (Utrecht University, The Netherlands) <i>Morphodynamic pattern formation in coastal seas with sandy beds: The role of tides, waves and sea level rise</i> (chair: Herman Clercx, Eindhoven University of Technology)</p>
14:50-15:50	Parallel Session 7A: Sediment Transport and Morphodynamics Parallel Session 7B: Open-channel Flows
15:50-16:20	Coffee break
16:20-18:00	Parallel Session 8A: Sediment Transport and Morphodynamics Parallel Session 8B: Open-channel Flows
19:30-22:30	Conference dinner (DAF Museum)

Wednesday, June 28th	
9:00-9:45	<p>Plenary talk Mohamed Ghidaoui (HKUST, Hong Kong) <i>Hydraulics of shallow shear flows – Onset, development and practical relevance</i> (chair: Leon Kamp, Eindhoven University of Technology)</p>
9:50-10:50	Parallel Session 9A: Hydrology Parallel Session 9B: Measurement Techniques
10:50-11:20	Coffee break
11:20-13:00	Parallel Session 10A: Semi-enclosed Basins Parallel Session 10B: Measurement Techniques
13:00-14:00	Lunch
14:00-14:45	<p>Plenary talk Pilar Garcia-Navarro (Universidad de Zaragoza, Spain) <i>The shallow water equations and their application to realistic cases</i> (chair: Wim Uijttewaaij, Delft University of Technology)</p>
14:50-16:30	Session 11: Flooding
16:30-16:45	Closing

Parallel Sessions: Monday, June 26

Session 1A: Gravity Currents and Salt Intrusion		Session 1B: Surface Waves	
Chair: Rob Uittenbogaard (Deltares)		Chair: Arnout Bijlsma (Deltares)	
09:50-10:10	Ekman boundary layers in a large-scale gravity current experiment <i>Davarpanah Jazi, S.</i>	09:50-10:10	Shallow-flow wave dynamics of equatorial atmosphere and oceans <i>Fernando, H.J.S.</i>
10:10-10:30	Three dimensional constant-inflow axisymmetric gravity currents <i>Inghilesi, R.</i>	10:10-10:30	SPH Based shallow water simulation of the 1993 Okushiri tsunami experiment <i>Ibrahim, A.M.A.</i>
10:30-10:50	Restricted exchange and saline blockage over a submerged sill <i>Laanearu, J.</i>	10:30-10:50	Modelling wave induced vertical mixing and the vertical temperature distribution in a shallow lake <i>Torma, P.</i>
Session 2A: Gravity Currents and Salt Intrusion		Session 2B: Numerical Techniques	
Chair: Eckart Meiburg (UC Santa Barbara)		Chair: Claudia Adduce (Università Roma Tre)	
11:20-11:40	The dynamics of freshwater fronts in the River Rhine plume <i>Rijnsburger, S.</i>	11:20-11:40	A comparison between energy-balanced schemes for the moving-water steady flows <i>Caleffi, V.</i>
11:40-12:00	Interaction between a gravitational circulation and a tidal flow: a study using large eddy simulation <i>Kaptein, S.J.</i>	11:40-12:00	Analysis of the efficiency of an implicit upwind finite volume scheme for 2D shallow flow simulation on unstructured meshes <i>Morales-Hernández, M.</i>
12:00-12:20	Density and velocity correlation terms in shallow water equations for density currents <i>Venuleo, S.</i>	12:00-12:20	Diffusion-dispersion numerical discretization for solute transport in transient shallow flows <i>Morales-Hernández, M.</i>
12:20-12:40	Development of salinity dispersion model in a weakly stratified shallow water body and its application to the seawater intrusion to Lake Ogawara, Japan <i>Ishikawa, T.</i>	12:20-12:40	Simulation of high-speed free surface flow using Smoothed Particle Hydrodynamics method <i>Nakayama, A.</i>
12:40-13:00	CFD modelling of the mitigation of salt intrusion by selective withdrawal <i>Boschetti, T.</i>	12:40-13:00	Well-balanced versus energy-balanced schemes for the shallow water equations <i>Navas-Montilla, A.</i>
Session 3A: Vortices and Wakes		Session 3B: Plumes	
Chair: George Constantinescu (University of Iowa)		Chair: Peter Davies (University of Dundee)	
14:50-15:10	Scale effects in shallow-water vortices <i>Heller, V.</i>	14:50-15:10	The use of small scale experiments for a shipping lock's bubble screen <i>Ven, P.P.D. van der</i>
15:10-15:30	Interaction of dipoles with shallow shear flows <i>Kamp, L.P.J.</i>	15:10-15:30	Weak bubble plume: entrainment or not? <i>Socolofsky, S.A.</i>
15:30-15:50	Atmospheric vortex shedding in the wake of islands <i>Etling, D.</i>	15:30-15:50	Experimental study of mixing dynamics of a buoyant plume using simultaneous PIV-PLIF <i>Mirajkar, H.N.</i>
Session 4A: Vortices and Wakes		Session 4B: Mixing Layers and Jets	
Chair: Scott Socolofsky (Texas A&M University)		Chair: Dieter Etling (Liebniz Universität Hannover)	
16:20-16:40	Upwelling in unsteady shallow island wakes <i>Branson, P.M.</i>	16:20-16:40	Shallow flow phenomena around the Eastern Scheldt storm surge barrier <i>Broekema, Y.B.</i>
16:40-17:00	Effect of gap flow on shallow wakes <i>Barron, R.M.</i>	16:40-17:00	Experimental investigation of shallow mixing layers at a river confluence using 3D-PTV <i>Consuegra M, C.S.M.</i>
17:00-17:20	Efficient and accurate estimation of water surface velocity in STIV <i>Fujita, I.</i>	17:00-17:20	Impact of relative turbulence scales on the effect of background turbulence on jet flows <i>Gaskin, S.J.</i>
17:20-17:40	Observation of water surface vortices by using a mid-infrared camera <i>Tani, K.</i>	17:20-17:40	Coherent structures in compound channel flows at the presence of transverse currents <i>Proust, S.</i>
17:40-18:00	Feasibility of a hydropower plant implementation at diversion dams (Case Study : Dez diversion dam site) <i>Rezaye Nazarzadeh, M.</i>	17:40-18:00	A numerical investigation of curvature effects on the evolution of shallow mixing layers <i>Constantinescu, G.</i>

Parallel Sessions: Tuesday, June 27

Session 5A: Vegetation and Roughness Chair: Wim Uijttewaai (Delft University of Technology)		Session 5B: Effects of Stratification and Rotation Chair: Benoit Cushman-Roisin (Dartmouth College)	
09:50-10:10	Combined effects of relative submergence and roughness aspect ratio on canopy flows <i>Chagot, L.</i>	09:50-10:10	Mass transport generated by stratified internal wave boundary layers <i>Beckebanze, F.</i>
10:10-10:30	Development of open channel flow passing over submerged vegetation zone <i>Ishihara, S.</i>	10:10-10:30	Subtleties in reducing 3D rotating dynamics to a 2D model <i>Cushman-Roisin, B.</i>
10:30-10:50	Study on the bed morphology depending on diverse flood event with vegetation effects in extreme shallow channel <i>Kang, T.</i>	10:30-10:50	Breaking solitary internal waves <i>La Forgia, G.</i>

Session 6A: Vegetation and Roughness Chair: Peter Herman (Deltares)		Session 6B: Sediment Transport and Morphodynamics Chair: Suzanne Hulscher (University of Twente)	
11:20-11:40	Experimental verification of two-layer model for analysing hydrodynamics of submerged vegetation <i>Michioku, K.</i>	11:20-11:40	Modelling secondary flow patterns in a rotating annular flume <i>Baar, A.W.</i>
11:40-12:00	Shallow uniform flow over a rough bed and within an array of emerging obstacles: Estimating the bed friction and obstacle drag coefficients <i>Mignot, E.</i>	11:40-12:00	The influence of storms on finite amplitude sand wave dynamics: an idealized nonlinear model <i>Campmans, G.H.P.</i>
12:00-12:20	2D modelling of open-channel flow through rigid vegetation: what strategy applying for simulating extreme flood events? <i>Oukacine, M.</i>	12:00-12:20	Exploring the two-way coupling between sand wave dynamics and benthic species: an idealised modelling approach <i>Damveld, J. H.</i>
12:20-12:40	Shallow flow field and large coherent structures in a vegetated floodplain channel <i>Hong Son, T.</i>	12:20-12:40	Non-cohesive bed sediment scours by submerged circular jet <i>Solimani Babarsad, M.</i>
12:40-13:00	Developing patch-scale vegetation models for the hydraulic, morphodynamic and ecological assessment of shallow flows <i>Marjoribanks, T.J.</i>	12:40-13:00	

Session 7A: Sediment Transport and Morphodynamics Chair: Pieter Roos (University of Twente)		Session 7B: Open Channel Flows Chair: John Z. Shi (Shanghai Jiao Tong University)	
14:50-15:10	River dune dynamics in regulated rivers <i>Hulscher, S.J.M.H.</i>	14:50-15:10	Secondary structures in a shallow channel with lateral bed-roughness variation <i>Eiff, O.</i>
15:10-15:30	Formation and migration of sandy mounds over pebble lags in tidal channels <i>Porcile, G.</i>	15:10-15:30	Studies on driftwood motions in curved channel with obstacles using hydraulic experiments and CFD models <i>Kimura, I.</i>
15:30-15:50	Sediment transport by tidal vortices: results from laboratory experiments <i>Duran-Matute, M.</i>	15:30-15:50	Investigation of turbulent coherent motions in a scour hole <i>Maity, H.</i>

Session 8A: Sediment Transport and Morphodynamics Chair: Huib de Swart (Utrecht University)		Session 8B: Open Channel Flows Chair: Joe Fernando (University of Notre Dame)	
16:20-16:40	Three-dimensional sediment trapping mechanisms in well-mixed estuaries <i>Wej, X.</i>	16:20-16:40	Impact of the shallowness on the passive scalar mixing efficiency in an open-channel confluence <i>Mignot, E.</i>
16:40-17:00	Hydraulic and geomorphic processes in open channel flow with lateral embayments and with fine sediments in suspension <i>Juez, C.</i>	16:40-17:00	The effect of small density differences in large confluences <i>Rooijen, E.J. van</i>
17:00-17:20	Field study on suspended sediment transport around spur dikes in river tidal area <i>Hirakawa, R.</i>	17:00-17:20	Circulation within the Curved Channel of the North Passage in the Changjiang River estuary, China: a vorticity approach <i>Shi, J.Z.</i>
17:20-17:40	Sediment morphodynamics induced by a swirl flow: an experimental study <i>Gonzalez Vera, A.S.</i>	17:20-17:40	Effects of hyper-concentrated sediments on flow resistance and flow pattern in an open channel with square ribs <i>Ohmoto, T. or Nishi, S.</i>
17:40-18:00	Erosion in small pipes below dikes <i>Hoffmans, G.</i>	17:40-18:00	Numerical study of tributary effects on flow dynamics around circular pier at discordance channel confluence <i>Biswal, S.K.</i>
18:00-18:20	Analytical conveyance method for 2D shallow flows combined with a node based morphological scheme <i>Kernkamp, H.W.J.</i>	18:00-18:20	Effect of sidewall proximity on the flow around a circular cylinder <i>Mulahasan, S.</i>

Parallel Sessions: Wednesday, June 28

Session 9A: Hydrology Chair: Giordano Lipari (Watermotion Waterbeweging)		Session 9B: Measurement Techniques Chair: Leon Kamp (Eindhoven University of Technology)	
09:50-10:10	On the transition between symmetric and asymmetric flow in rectangular shallow reservoirs - a case of maximum energy dissipation? <i>Dewals, B.</i>	09:50-10:10	Stereoscopic measurements through a free water surface <i>Akutina, Y.</i>
10:10-10:30	Climate change and its effects on snowmelt runoff timing based on snow data <i>Ghorbanizadeh kharazi, H.</i>	10:10-10:30	Non-contact acoustic characterisation of the dynamic patterns at the free surface of shallow turbulent flows <i>Dolcetti, G.</i>
10:30-10:50	A numerical study on the influence of microtopography on rainfall-runoff-infiltration partitioning <i>Caviedes-Voullième, D.</i>	10:30-10:50	Large scale PIV applied to flow interaction downstream a semi-open barrier <i>Verbeek, M.C.</i>

Session 10A: Semi-enclosed Basins Chair: Mohamed Ghidaoui (Hong Kong University of Science and Technology)		Session 10B: Measurement Techniques Chair: Matias Duran Matute (Eindhoven University of Technology)	
11:20-11:40	Shallow flow past a cavity: effect on the exchange and the mechanism of the resonant response <i>Akutina, Y.</i>	11:20-11:40	A miniature high resolution velocity profiler applied to shallow flow mapping <i>Fischer, S.</i>
11:40-12:00	Challenges in modeling the spatial variation of salinity in a shallow river delta <i>Hodges, B.R.</i>	11:40-12:00	Application of high-resolution ALB data of shallow water to river flow analysis <i>Maeno, S.</i>
12:00-12:20	Storm-surge simulations: a quantitative comparison of some open-source shallow-water solvers <i>Lipari, G.</i>	12:00-12:20	Improvement of float measurement method for river discharge using quasi-3D flood analysis <i>Akoh, R.</i>
12:20-12:40	Time-dependent linearisation of bottom friction for storm surge modelling in the Wadden Sea <i>Roos, P. C.</i>		
12:40-13:00	Detailed hydrodynamics of the Eastern Scheldt storm surge barrier: validation of a CFD approach <i>Bijlsma, A.</i>		

Session 11: Floods Chair: Pilar Garcia-Navarro (Universidad de Zaragoza)	
14:50-15:10	Estimation of flood risk management on the lowland of Tokyo Area in 17th century by numerical flow simulation <i>Ishikawa, T.</i>
15:10-15:30	Shallow water model with anisotropic porosity for flood modelling on Cartesian grids <i>Bruwier, M.</i>
15:30-15:50	Levees numerical modelling in river flooding <i>Echeverribar, I.</i>
15:50-16:10	Three dimensional numerical modelling of dam break floods <i>Horna Munoz, D.</i>
16:10-16:30	Benchmark study of numerical model grids to study historic floods of the river Rhine <i>Bomers, A.</i>