

List of Presentations UPDATED June 1, 2011

9:00-10:00	Room 1505: Keynote Lecture: Prof. Jim Best, University of Illinois, Urbana-Champaign, USA “The fluvial BBC: Aspects of shallow river flows in bends, bifurcations, and confluences” (2) Chair: M. Garcia, University of Illinois Urbana Champaign, USA		
Shallow Wakes Monday Morning, Room 2217 Chair: V. Chu, McGill University, Canada		Shallow Open Channel Flows with Vegetated Canopies Monday Morning, Room 3505 Chair: U. Shavit, Technion Univ., Israel	
Time	Title and Authors	Time	Title and Authors
10:30-10:50	The experimental investigation on the flow around a low-aspect-ratio wall-mounted bluff body <i>S. M. Hajimirzaie, J. H. J. Buchholz (70)</i>	10:30-10:50	Vegetated shear layer around a finite-size patch of submerged plants <i>T. A. Sukhodolova, A. N. Sukhodolov (95)</i>
10:50-11:10	Flow dynamics around 2D permeable and impermeable bedforms in a shallow, free-surface flow <i>G. Blois, J. L. Best, G. H. Sambrook Smith, R. J. Hardy (73)</i>	10:50-11:10	Characterization of vortex dynamics over submerged vegetation canopies in shallow flows <i>T. I. Marjoribanks1, R. J. Hardy, S. N. Lane, D. R. Parsons (98)</i>
11:10-11:30	Simulation of shallow wakes in open channels <i>G. Nasif, R. Balachandar, R.M. Barron (76)</i>	11:10-11:30	Transport of heavy particles within canopies: A Lagrangian stochastic model and comparison with measurements <i>T. Duman, Y. Bohbot-Raviv, U. Shavit (102)</i>
11:30-11:50	Flow structure within shallow wake behind circular cylinders <i>J. Zeng, G. Constantinescu, W. Brevis (80)</i>	11:30-11:50	Using high-resolution CFD results to improve representation of vegetative drag and blockage effects within reach-scale flow models <i>T. I. Marjoribanks, R. J. Hardy, S. N. Lane, D. R. Parsons (105)</i>
11:50-12:10	The role of bed friction in vortex shedding around islands in shallow oscillatory flow <i>P. Branson, M. Ghisalberti, G. Ivey (84)</i>	11:50-12:10	Comparison between the Analyses of open channel flows with rigid vegetation using a detailed 2D flow model and a spatially-averaged model <i>Y. Shibayama, S. Onda, T. Hosoda (108)</i>
12:10-12:30	Effect of wall jet in shallow wake – vortex statistics <i>A. Singha, R. Balachandar (87)</i>	12:10-12:30	A phenomenological closure model of the normal dispersive stresses <i>S. Moltchanov, U. Shavit (111)</i>

9:00-10:00	Room 1505: Keynote Lecture: Prof. Jim Best, University of Illinois, Urbana-Champaign, USA “The fluvial BBC: Aspects of shallow river flows in bends, bifurcations, and confluences” (2) Chair: M. Garcia, University of Iowa, U.S.		
Shallow Flows and Stratification: Mixing Monday Morning, Room 3026 Chair: S. Voropayev, University of Notre Dame, USA		Numerical Simulation of Flows in Shallow Environments Monday Morning, Room 2133 Chair: F. Bombardelli, U.C. Davis, USA	
Time	Title and Authors	Time	Title and Authors
10:30-10:50	Thermal surface signatures of ship propeller wakes in stratified waters <i>S.I. Voropayev, C. Nath, H.J. Fernando (115)</i>	10:30-10:50	Impact of tidal dispersion and time scales on numerical diffusion in unstructured-grid estuarine modeling <i>V. P. Chua, O.B. Fringer (136)</i>
10:50-11:10	Internal dynamics of a dense-water overflow in an up-sloping and converging vee-shaped channel <i>J. Laanearu, A.J.S. Cuthbertson, P. Davies (119)</i>	10:50-11:10	Importance of local mass conservation in coupling flow and transport models <i>S. Brus, J. J. Westerink, D. Wirasaet, A. Donahue, E. J. Kubatko, C. Dawson (139)</i>
11:10-11:30	A three dimensional model for simulating dynamic behavior of salt water in tone river Estuary, Japan <i>X. Xu, T. Nakamura, Y. Kobayashi, T. Kojima, T. Ishikawa (123)</i>	11:10-11:30	Experimental and numerical investigation of a meandering jet in a shallow rectangular reservoir under different hydraulic conditions <i>E. Camnasio, M. Pirotton, S. Erpicum, B. Dewals (142)</i>
11:30-11:50	Rapid assessment of the fresh-saline groundwater interaction in the semi-arid Mewat District (India) <i>N. Thomas, R. Sheler, B. Reith, S. Plenner, L. Sharma, S. Saiphy, N. Basu, M. Muste (126)</i>	11:30-11:50	3D sediment transport numerical simulation and estimation of desilting capacity for Fei-Tsui reservoir <i>H. C. Lien, W. Y. Chang, C. T. Hsu, S. J. Wu, W. F. Tsai (145)</i>
11:50-12:10	Pathways and mixing of river inflow in a Mediterranean stratified reservoir (Béznar, Spain) <i>A. Cortés, F. Rueda, M. Acosta, W. Fleenor (129)</i>	11:50-12:10	A boussinesq scaling of the pressure poisson equation for resolving near shore wave dynamics <i>A. Donahue, J. Westerink, Y. Zhang, A. Kennedy (148)</i>
		12:10-12:30	On the use of phenomenological theory of turbulence for addressing shallow flows <i>F. Bombardelli (151)</i>

14:00-15:00	<p align="center">Room 1505: Keynote Lecture: Prof. Peter Davies, University of Dundee, U.K. “Internal solitary wave behavior in shallow two-layer systems” (10) Chair: E. Meiburg, U.C., Santa Barbara, USA</p>		
<p align="center">Shallow Open Channel Flows with a Rough Bottom Monday Afternoon, Room 3505 Chair: T. Ishikawa, Tokyo Institute of Technology, Japan</p>		<p align="center">Morphodynamics and Sediment Transport Rates Monday Afternoon, Room 3026 Chair: A.M. da Silva, Queen’s University, Canada</p>	
Time	Title and Authors	Time	Title and Authors
15:30-15:50	Turbulent characteristics of shallow flow over rough surface with regularly arrayed spheres <i>T. Ohmoto , T. Sukarno (156)</i>	15:30-15:50	Breaking waves on a dynamic Hele-Shaw Beach <i>O. Bokhove, B. van der Horn, D. Van der Meer, W. Zweers, A. Thornton (181)</i>
15:50-16:10	Can we use clasts to regulate sediment infiltration within Spawning gravels? <i>D. Dermisis, T. Papanicolaou (159)</i>	15:50-16:10	Depositional turbidity currents interacting with seafloor topography: Depth-resolved numerical simulations <i>M. M. Nasr-Azadani, E. Meiburg (184)</i>
16:10-16:30	Investigating the effects of fully and partially submerged clasts on the surrounding mean flow field <i>T. Papanicolaou, A. Tsakiris, C. Kramer, T. Champagne (163)</i>	16:10-16:30	Development time of equilibrium bed topography in shallow meandering flows <i>A. D. Binns, A. M. Ferreira da Silva (187)</i>
16:30-16:50	Macro resistance to flow on steep open channel <i>T. Wang, V. H. Chu (167)</i>	16:30-16:50	Using a one-dimensional morphodynamic model to study sediment transport in rills <i>B. Abban, A. N. Papanicolaou (190)</i>
16:50-17:10	Persistence of the log-law layer in rough and shallow open channel flows with low relative submergence <i>E. Florens, O. Eiff, F. Moulin (170)</i>	16:50-17:10	Modification of the bed sediment equations of Spasojevic and Holly (1993) to account for variable porosity, grain specific gravity, and nonerodable boundaries <i>G. L. Brown (193)</i>
17:10-17:30	Turbulence and waves in subcritical and supercritical shear flows <i>S. K. Ghannadi, V. H. Chu (174)</i>	17:10-17:30	Dimensionless width and depth and sediment transport rate in stable rivers <i>S. Fukuoka (196)</i>
17:30-17:50	Investigation of characteristics and drag coefficient of channel flows passing through tetrahedron frames using FLDV <i>J. Y. Lu, T. F. Chang, M. J. Wang (177)</i>	17:30-17:50	The study of bed load sediment transport regarding to bed form; case study <i>S. A. Hosseini, M. Moeini (200)</i>

14:00-15:00	<p align="center">Room 1505: Keynote Lecture: Prof. Peter Davies, The University of Dundee, U.K. “Internal solitary wave behavior in shallow two-layer systems” (10) Chair: E. Meiburg, U.C., Santa Barbara, U.S.</p>		
<p align="center">Numerical Modeling of Floods Monday Afternoon, Room 2133 Chair: Y. Ding, The University of Mississippi, USA</p>		<p align="center">Special Session in Honor of Prof. G. Jirka: Shallow Mixing Layers and Wakes Monday Afternoon, Room 2217 Chair: S. Sokolofsky, Texas A&M University, USA</p>	
Time	Title and Authors	Time	Title and Authors
15:30-15:50	The numerical simulation of run-up tsunami in Tone River caused by the 2011 off the Pacific Coast of Tohoku earthquake, Japan <i>R. Akoh, T. Ishikawa (205)</i>	15:30-15:55	Shallow mixing layers <i>V. Chu (225)</i>
15:50-16:10	Adaptive modelling of tsunami inundation <i>Q. Liang (209)</i>	15:55-16:20	The sensitivity of vortex merging to phase angle difference in shallow mixing layers <i>M.Y. Lam, M.S. Ghidaoui (228)</i>
16:10-16:30	Validation of an integrated coastal processes model by simulating storm-surge and wave in the Mississippi/Louisiana Gulf Coast <i>Y. Ding, A. Rusdin, S. N. Kuiry, Y. Zhang, Y. Jia, M. S. Altinakar (212)</i>	16:20-16:45	LES of shallow mixing interfaces <i>G. Constantinescu (231)</i>
16:30-16:50	A well-balanced non-linear shallow water equations model for extreme flood propagation over natural terrains <i>M. Guerra, R. Cienfuegos, C. Escauriaza (216)</i>	16:45-17:10	Lagrangian analysis to reveal chaotic mixing in groyne fields <i>M.Zsugyel, K. Gábor-Szabó, M. Kiss, T. Krámer, J. Józsa (236)</i>
16:50-17:10	Numerical analysis of unsteady flow and bed variation using temporal changes in water surface profiles during 1981 flood of the Ishikari River Mouth <i>S. Okamura, S. Fukuoka (220)</i>	17:10-17:35	Shallow wake formed after porous structures: Characterization of the influence of the solid volume fraction <i>F. Prinz, W. Brevis, S. Socolofsky (239)</i>
17:10-17:30	A mesh-free particle model for shallow waters <i>A. Shakibaenia, Y. C. Jin (535)</i>	17:35-18:00	Onset conditions for vortex shedding wakes in atmosphere and ocean <i>D. Chen (243)</i>

9:00-10:00	Room 1505: Keynote Lecture: Prof. Wim Uijtewaal, Delft University of Technology, The Netherlands “Turbulence in shallow river flows” (20) Chair: A. Sukhodolov, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Germany		
Shallow Open Channel Flows: Curved Channels and Hydraulic Jumps Tuesday Morning, Room 3505 Chair: A. Nakayama, Kobe University, Japan		Sediment Transport and Local Scour: Numerical Simulations Tuesday Morning, Room 3321 Chair: O. Eiff, University of Toulouse & CNRS, France	
Time	Title and Authors	Time	Title and Authors
10:30-10:50	Flow and turbulence structure in shallow open channel bends <i>G. Constantinescu, M. Koken, J. Zeng (249)</i>	10:30-10:50	Numerical simulation of meander-bend morphodynamics: Investigating the efficiency of rock-vanes in bank protection <i>A. Khosronejad and F. Sotiropoulos (274)</i>
10:50-11:10	LES simulation of flow in a curved channel considering motion of the free-surface <i>H. Inokuma, T. Kuriyama, A. Nakayama (253)</i>	10:50-11:10	Local scour around a variably submerged barb in shallow water <i>F. Bressan and A.N. Papanicolaou (277)</i>
11:10-11:30	The influence of channel-skewed bedforms on secondary flows in high curvature meander bends <i>A. Bryk, J. Best, J. Abad, M. Garcíá (256)</i>	11:10-11:30	Vortical flow structure around a cylindrical bridge pier: Experimental and computational investigation <i>N. Apsilidis, A. Khosronejad, P. Diplas, F. Sotiropoulos, C. Dancey (280)</i>
11:30-11:50	Turbulent hydraulic jump over a rough bed trapezoidal channel: Universal relations <i>A. Seena, N. Afzal, A. Bushra (269)</i>	11:30-11:50	An investigation of coherent vortical structures of flow at In-situ Niudou bridge in Taiwan <i>W. Y. Chang, G. Constantinescu, H. C. Lien, W. F. Tsai, J. S. Lai, C. H. Loh (284)</i>
11:50-12:10	A comparison of dynamic forces in 2D inclined hydraulic jumps over smooth and rough beds <i>D. Dimitriou, J. Demetriou (263)</i>	11:50-12:10	Numerical simulation of spur dike shape effect on meander migration: Atrak river case study <i>A. A. Ghezelsefloo, M. Maghrebi (288)</i>
12:10-12:30	Energy losses along an inclined jump over a gradual floor rise <i>D. Dimitriou, J. Demetriou (266)</i>	12:10-12:30	Bottom velocity computation method based on depth integrated model without shallow water assumption <i>T. Uchida, S.Fukuoka (291)</i>
12:30-12:50	3D numerical simulation of flow field in a sinuous curved bend <i>A.A. Ghezelsefloo, M. Maghrebi, S. Alizadeh (260)</i>		

9:00-10:00	<p align="center">Room 1505: Keynote Lecture: Prof. Wim Uijttewaal, Delft University of Technology, The Netherlands “Turbulence in shallow river flows” (20) Chair: A. Sukhodolov, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Germany</p>		
<p align="center">Flood Control and Mitigation Tuesday Morning, Room 2229 Chair: N. Young, The University of Iowa, U.S.</p>		<p align="center">Special Session in Honor of Prof. G. Jirka: Coherent Structures, Mixing Processes and Stratification Tuesday Morning, Room 2217 Chair: S. Sokolofsky, Texas A&M University, USA</p>	
Time	Title and Authors	Time	Title and Authors
10:30-10:50	Development of real-time flood forecast system in Taiwan <i>H.C. Lien, S.J. Wu, C.T. Hsu, W.F. Tsai, J. C. Shen, C. H. Chang (296)</i>	10:30-10:55	Large-scale structures in shallow separating flows <i>H. Talstra, W.S.J. Uijttewaal (320)</i>
10:50-11:10	Iowa Flood Center: A State Center for flood research and education <i>L.Weber, W. Krajewski, N. Young (300)</i>	10:55-11:20	From Field with a Lab: tribute to Gerhard Jirka’s legacy <i>A. Sukhodolov (323)</i>
11:10-11:30	Community-based inundation map libraries for communicating flood risk <i>J. Piotrowski, D. Gilles, N. Young (303)</i>	11:20-11:45	Site scale remote sensing of mixing zones <i>R.L. Doneker (327)</i>
11:30-11:50	Optimal flood control in alluvial river under consideration of morphological changes <i>Y. Ding (306)</i>	11:45-12:10	Merging dense jets <i>P. Davies, J. Vlaskamp, A.J.S. Cuthbertson, M. Heilbronn (331)</i>
11:50-12:10	Study about velocity index in actual river during flooding <i>A. Yorozuya, K. Fukami (309)</i>	12:10-12:35	Density currents caused by CSO events in Bubbly Creek, Chicago, Illinois <i>X. Liu, S. Sinha, D. Motta, M.H. Garcia (334)</i>
12:10-12:30	Flood flow analysis using a quasi-three-dimensional flow model and aerial photos <i>K.Yoshida, T. Ishikawa, Y. Minoura (313)</i>	12:35-13:00	Using ship-mounted ADCP tracks based on surface drifter observations to measure tidal vortices at Aransas Pass, Texas <i>K. Whilden, S. Socolofsky, K. A. Chang, J. Irish (337)</i>
12:30-12:50	Investigating the performance of flood routing with simplified dynamic equations and limited hydraulic geometry data <i>J Barr, R Mantilla (317)</i>		

14:00-15:00	<p align="center">Room 1505: Keynote Lecture: Prof. Gertjan van Heijst, Eindhoven University of Technology, The Netherlands “Shallow flows: 2D or not?” (36) Chair: P.A. Davies, University of Dundee, U.K.</p>		
<p align="center">Shallow Mixing Layers and Jets Tuesday Afternoon, Room 2133 Chair: E. Mignot, CNRS-Université de Lyon, France</p>		<p align="center">Investigation of Shallow Flows at Field Conditions: Lakes and Coastal Regions Tuesday Afternoon, Room 2229 Chair: T. Kramer, Budapest University of Technology and Economics, Hungary</p>	
Time	Title and Authors	Time	Title and Authors
15:30-15:50	On the structure of the shallow mixing interface at a river confluence <i>G. Constantinescu, S. Miyawaki, B. Rhoads, A. Sukhodolov (340)</i>	15:30-15:50	Large-scale mixing of water imported into a shallow lake <i>T. Kramer, J. Jozsa, P. Torma (354)</i>
15:50-16:10	Mean flow and turbulent characteristics of the mixing layer in an open-channel junction flow <i>E. Mignot, I. Vinkovic, N. Riviere, D. Doppler (344)</i>	15:50-16:10	A Study of the Hydrodynamics of the Coastal Lagoon “Valli di Comacchio” <i>D. Bernardi, V. Caleffi, L. Gasperini, L. Schippa, A. Valiani (356)</i>
16:10-16:30	Surface thermal and velocity signatures of a shallow heated jet <i>C. Nath, S. Voropayev, H.J. Fernando (347)</i>	16:10-16:30	Basin scale response of Lake Michigan: near-inertial internal Poincaré waves <i>C. Troy, S. Ahmed (360)</i>
16:30-16:50	Mixing of 45° inclined dense jets in shallow coastal waters: Surface impact dilution <i>B. Jiang, A.W.K. Law, J.H.W. Lee (350)</i>	16:30-16:50	Seasonal variability of basin-scale modes in Lake Michigan <i>J. Choi, C. Troy (362)</i>
		16:50-17:10	Field measurements of wave-current interaction in the bottom boundary layer of Lake Michigan <i>J. Xiao, B. Wang, Q. Liao, H. A. Bootsma, H. Bravo (364)</i>
		17:10-17:30	Investigation on coastal current velocities: numerical simulations and velocity profile laws <i>M.B. Meftah, F. De Serio, M. Mossa (367)</i>

14:00-15:00	Room 1505: Keynote Lecture: Prof. Gertjan van Heijst, Eindhoven University of Technology, The Netherlands “Shallow flows: 2D or not?” (36) Chair: P.A. Davies, University of Dundee, U.K.		
Shallow Flows and Stratification: Gravity Currents Tuesday Afternoon, Room 2217 Chairs: A. Cuthbertson, Heriot-Watt University, U.K. and E. Meiburg, University of California Santa Barbara, USA		Analytical Modeling of Shallow Flows Tuesday Afternoon, Room 3321 Chair: A. Kennedy, The University of Notre Dame, USA	
Time	Title and Authors	Time	Title and Authors
15:30-15:50	Intrusive gravity currents between adjacent stratified regions of different stratifications <i>E. McGregor, R. Cink, D. Bolster (371)</i>	15:30-15:50	Families of highly dispersive shallow water systems <i>A.B. Kennedy, Y. Zhang (395)</i>
15:50-16:10	Gravity currents in rotating, topographically-controlled channels <i>A.J.S. Cuthbertson, P. Davies, L. Chafik, P. Lundberg, J. Laanearu, A. Wählin (374)</i>	15:50-16:10	Similarity solutions for horizontal convection flow along a discontinuously cooled surface <i>A. Shapiro, E. Fedorovich (397)</i>
16:10-16:30	High-resolution LES simulation of turbulent gravity and turbidity currents over complex topography <i>S. Radhakrishnan, M. Nasr-Azadani, E. Meiburg (378)</i>	16:10-16:30	A Hamiltonian Boussinesq model with horizontally sheared currents <i>E. Gagarina, J. van der Vegt, V. Ambati, O. Bokhove (401)</i>
16:30-16:50	An LES study of exchange flow between open water and a region containing a vegetated surface layer <i>A. Yuksel-Ozan, G. Constantinescu, H. Nepf (382)</i>	16:30-16:50	Fundamental characteristics on invasion processes of tsunamis over a land based on self-similarity distribution analysis <i>H. Shirai, T. Hosoda, P. H. Tion (405)</i>
16:50-17:10	Numerical and experimental investigation of density current over bedforms and rough bottom <i>Y. Jiang, X. Liu (386)</i>	16:50-17:10	A new one-dimensional analysis of the stream shift toward the bank in curved channel <i>C. Liu and T. Ishikawa (409)</i>
17:10-17:30	A layer-averaged turbidity current model with morphological Change <i>Y. G. Lai, K. Wu (388)</i>	17:10-17:30	Nonlinear dynamics of magnetohydrodynamic shallow water flows over an arbitrary surface <i>K. Kirill, P. Arakel, T. Stepan (413)</i>
17:30-17:50	Flow regimes of laterally unconfined density currents on a sloping bottom <i>G. C. Christodoulou (392)</i>		

14:00-15:00	<p style="text-align: center;">Room 1505</p> <p style="text-align: center;">Keynote Lecture: Prof. Gertjan van Heijst, Eindhoven University of Technology, The Netherlands “Shallow flows: 2D or not?” (36) Chair: P.A. Davies, University of Dundee, U.K.</p>
<p>Innovative Measurement Techniques and Instrumentation for Shallow Flows Tuesday Afternoon, Room 3505 Chair: P. Rusello, NortekUSA, USA and Nortek Scientific, Canada</p>	
Time	Title and Authors
15:30-15:50	In situ PIV measurement of small scale turbulence in a wind wave surface boundary layer <i>B. Wang, J. Xiao, Q. Liao, H. A. Bootsma (418)</i>
15:50-16:10	A three-dimensional experimental investigation of the structure of the spanwise vortex formed by a shallow vortex dipole <i>J. Albagnac, F. Moulin, O. Eiff, L. Lacaze, P. Brancher (422)</i>
16:10-16:30	Endoscopic PIV measurements within the pore space of a highly-permeable bed: the role of flow depth <i>G.H. Sambrook Smith, G. Blois, J.L. Best, R. Hardy (426)</i>
16:30-16:50	Large Scale Particle Image Velocimetry: A Reliable instrument alternative for shallow flows <i>M. Muste (428)</i>
16:50-17:10	Sediment erosion measurements with the Nortek Vectrino II <i>P. Rusello (430)</i>
17:10-17:30	Performance of ADCP in shallow flow field studies <i>A. Nardin and A. Sukhodolov (433)</i>
17:30-17:50	A computer vision technique for real-time topographic measurements of mobile sediment beds <i>P. Bouratsis, P. Diplas, C. Dancey, N. Apsilidis (437)</i>

9:00-10:00	Room 1505: Keynote Lecture: Prof. Joannes Westerink, The University of Notre Dame, USA “Hurricane waves, forerunner and storm surge and their interaction in the Gulf of Mexico” (47) Chair: D. Bolster, The University of Notre Dame, USA		
Shallow Open Channel Flows: Numerical Simulations Wednesday Morning, Room 2217 Chair: S.K. Venayamoorthy, Colorado State University, USA		Investigation of Shallow Flows at Field Conditions: Measurement Techniques and Data Analysis Wednesday Morning, Room 3505 Chair: I. Fujita, Kobe University, Japan	
Time	Title and Authors	Time	Title and Authors
10:30-10:50	Numerical study on lateral momentum transfer on roughness transition in shallow open channel flows <i>I. Kimura, W. S. J. Uijtewaal (443)</i>	10:30-10:50	Investigation of near outer-bank turbulence in an active compound bend <i>F. L. Engel, B. L. Rhoads (473)</i>
10:50-11:10	Simulation of shallow water surface patterns with hemisphere roughness elements by Large Eddy Simulation <i>I. Fujita, T. Okanishi, Y. Furutani (447)</i>	10:50-11:10	Field study of horizontal vortices in a compound channel <i>T. Ishikawa, Y. Minoura (477)</i>
11:10-11:30	URANS and LES computations of waver of secondary flow on channel flows with triangular roughness on side walls <i>Y. Kouchi, T. Hosoda, I. Kimura (451)</i>	11:10-11:30	Hilbert-Huang analysis of shallow flow velocity data <i>J. Zinger, K. Konsoer, B. Rhoads (481)</i>
11:30-11:50	LES simulation of shallow flow with partially submerged objects <i>A. Nakayama, N. Hisasue, K. Asami, S. Yokojima (454)</i>	11:30-11:50	Shallow wake flow downstream an islet in a gravel bed river <i>A. Sukhodolov, A. Nardin (485)</i>
11:50-12:10	Flow structure in a shallow channel with large-scale bottom roughness <i>K.S. Chang, G. Constantinescu (457)</i>	11:50-12:10	Determining the primary flow direction in a natural river with an Acoustic Doppler Current Profiler <i>J. Petrie, P. Diplas, M. Gutierrez, S. Nam (489)</i>
12:10-12:30	LES of turbulent flow over 3D dunes <i>Z. Xie, B. Lin, R. A. Falconer (461)</i>	12:10-12:30	Observations of shallow turbulence in the mouth of the Columbia river <i>E. D. Zaron, H. R. Moritz, G. R. Gelfenbaum (493)</i>
12:30-12:50	Application of wall layer models in Simulation of open channel flows using LES <i>H. Shamloo, N. Pishgoo, B. Pirzadeh (465)</i>		
12:50-13:10	Numerical flow field characterization of the ripple-dune amalgamation process <i>C. Frias, J. Abad (469)</i>		

9:00-10:00	<p align="center">Room 1505: Keynote Lecture: Prof. Joannes Westerink, The University of Notre Dame, USA “Hurricane waves, forerunner and storm surge and their interaction in the Gulf of Mexico” (47) Chair: D. Bolster, University of Notre Dame, U.S.</p>		
<p align="center">Sediment Transport and Local Scour: Experiments Wednesday Morning, Room 3321 Chair: M. Koken, Middle East Technical University, Turkey</p>		<p align="center">Numerical Simulation of Dam Break Related Phenomena Wednesday Morning, Room 4030 Chair: Y. Lai, U.S. Bureau of Reclamation, USA</p>	
Time	Title and Authors	Time	Title and Authors
10:30-10:50	Detection of erosion depth using a passive RFID technology <i>A. Papanicolaou, I. Moustakidis, A. Tsakiris (498)</i>	10:30-10:50	Submerged and un-submerged flow through Dam Breach <i>S. K. Ghannadi, V. H. Chu (525)</i>
10:50-11:10	Investigation of flow field upstream a multi-barrel culvert using non-intrusive techniques <i>H. C. Ho, S. Plenner, M. Muste (502)</i>	10:50-11:10	Numerical simulation of undular bore with breaking generated by a dam break flow in a circular cross section <i>T. Hosoda, M. Iwata (528)</i>
11:10-11:30	Turbulence characteristic measurement in evolving scour hole upstream of a multi-barrel culvert <i>H. C. Ho, M. Muste, and A. Firoozfar (505)</i>	11:10-11:30	A well-balanced SPH model for shallow flow over topography <i>Q. Liang, X. Xia (532)</i>
11:30-11:50	Hydraulic model study to repair Union Electric’s Keokuk Dam Ogee Spillways <i>T. Nakato (508)</i>	11:30-11:50	A study on the characteristics of finite extent dam-break flow by using a spatial integral model <i>H. T. Puay, T. Hosoda (539)</i>
11:50-12:10	Experimental investigation of the effect of riprap properties on the failure threshold of spur dikes in 90 degree bend <i>S. M. Kashefipour, J. Zahiri, M. S. Bajestan, M. Bakhtiari (511)</i>	11:50-12:10	Three-dimensional numerical simulation of dam break flow based on a volume of fluid approach <i>R. Marsooli, W. Wu (543)</i>
12:10-12:30	Investigating air-injection as a mechanism to reduce bed scour <i>T. M. Champagne, B. D. Barkdoll (514)</i>		
12:30-12:50	Clear-water scouring around underwater pipelines in river meander <i>A. Keshavarzi, M. Feizi, J. Ball (518)</i>		
12:50-13:10	Bed scouring pattern around bridge piers in meandering streams <i>A. Keshavarzi, D. Hooshmand, J. Ball (521)</i>		

14:00-15:00	Room 1505: Keynote Lecture: Prof. Peter Zavialov, P.P. Shirshov Institute of Oceanology, Russia “Dynamics of River Plumes in Coastal Ocean” (53) Chair: J.H. Fernando, The University of Notre Dame, USA		
Transport and Mixing in Shallow Environments Wednesday Afternoon, Room 2133 Chair: M. Koken, Middle East Technical University, Turkey		Investigation of Shallow Flows at Field Conditions: Tidal Flows Wednesday Afternoon, Room 2217 Chairs: Ed Zaron, Portland State University and P. McKay, Stennis Space Center, USA	
Time	Title and Authors	Time	Title and Authors
15:00-15:20	A numerical study of horizontal sediment-laden jet <i>P. Liu, K.M. Lam (547)</i>	15:00-15:20	Understanding the hydrodynamics of a North Sea tidal inlet by numerical simulation and radar current measurements <i>C. M. Swinkels, A. C. Bijlsma (561)</i>
15:20-15:40	Scalar dispersion around a cylindrical obstacle in oscillatory flows <i>H. Ku, S. K. Venayagamoorthy (550)</i>	15:20-15:40	The tidally driven confluence region between two rivers <i>R. Mied, W. Chen, C. Snow, P. McKay (565)</i>
15:40-16:00	Improved RANS turbulence models for stably stratified environmental flows <i>F. Karimpour, S. K. Venayagamoorthy (615)</i>	15:40-16:00	Bathymetric control of front generation in a tidal river <i>P. McKay, C. A. Blain, R. Mied (569)</i>
16:00-16:20	Interpreting the mixing efficiency from two-equation turbulence closure models <i>B. Wang, O. Fringer, M. T. Stacey (619)</i>	16:00-16:20	Unsteady tidal effects on flood flow in the estuarine channel of Yangtze river <i>Z. Wang, T. Ishikawa, K. Yoshida (572)</i>
16:20-16:40	Mixing processes and anchor ice formation in a shallow river <i>E Kempema, R. Ettema (556)</i>	16:20-16:40	Generation and transport of tidal vortices in Knik Arm, Alaska <i>D. B. Bryant, R. S. Chapman, S. J. Smith (576)</i>

14:00-15:00	Room 1505: Keynote Lecture: Prof. Peter Zavialov, P.P. Shirshov Institute of Oceanology, Russia “Dynamics of River Plumes in Coastal Ocean” (53) Chair: J.H. Fernando, The University of Notre Dame, U.S.		
Experimental Investigations of Sediment Transport Phenomena Wednesday Afternoon, Room 3321 Chair: G. Christodoulou, National Technical University of Athens, Greece		Suspended Sediment Transport Wednesday Afternoon, Room 3505 Chairs: R. Doneker, MixZon Inc., Portland, U.S. and G.L. Brown, Engineer Research and Development Center, USA	
Time	Title and Authors	Time	Title and Authors
15:00-15:20	Fractal morphologic description of cluster microforms in gravel streams <i>A.N. Papanicolaou, A. Tsakiris, K. Strom (582)</i>	15:00-15:20	Non-Newtonian properties and flow structure in hyperconcentrated sediment laden flow <i>T. Ohmoto, L. Hendratta (595)</i>
15:20-15:40	Investigating the effects of soil surface roughness and landscape topography on the dynamics of upland erosion processes <i>D. Dermisis, A. N. Papanicolaou, K. Wacha, B. Abban, C. Wilson (586)</i>	15:20-15:40	A quasi-3d suspended sediment model using a set of correction factors applied to a depth averaged advection diffusion <i>G. L. Brown (598)</i>
15:40-16:00	Measuring critical erosional strength of cohesive bank soils in a natural channel affected by secondary currents <i>T. Sutarto, A.N. Papanicolaou (589)</i>	15:40-16:00	Field study on flushing fine bed sediment in the Tone river Estuary, Japan <i>T. Ishikawa, K. Matsunobu, Y. Minoura (602)</i>
16:00-16:20	Experimental studies of static bed armoring <i>D. Chen, H. Sun, Y. Zhang (592)</i>	16:00-16:20	Characteristics of flow and suspended sediment concentration over sandbar in a macrotidal estuary <i>T. Ohmoto, R. Hirakawa (606)</i>
		16:20-16:40	The movement of water and sediment through drain tiles and alternative tile intakes <i>A.N. Papanicolaou, B. E. Reuter, C. G. Wilson (610)</i>