

**Third International Conference on Ship Manoeuvring in Shallow and
Confined Water**
with non-exclusive focus on
Ship Behaviour in Locks

Convention Centre Het Pand
Onderbergen 1, 9000 Gent, Belgium

CONFERENCE PROGRAM

3 JUNE 2013 (MONDAY)

8:00 - 9:00	Registration
9:00 - 9:10	Opening address: Katrien Eloot, Co-ordinator of the Knowledge Centre Manoeuvring in Shallow and Confined Water, Flanders Hydraulics Research and Professor at Ghent University, Maritime Technology Division
9:10 - 9:25	Second opening address: Peter Mortier, Deputy Managing Director, Port of Ghent
9:25 - 10:10	Invited Keynote Speech by Capt. Miguel F. Rodriguez S., Canal Operations Manager and Executive Manager for Transit Operations, Panama Canal Authority
	SESSION A1: Ship Behaviour in Locks (Chair: Prof. K. Eloot and Prof. M. Vantorre)
10:10 - 10:35	<i>Manoeuvring at transit of the existing north lock and the future sea lock at IJmuiden, the Netherlands; pilot procedures and information from scale model tests.</i> W.C.D. Kortlever, G. de Boer Rijkswaterstaat, Centre for Infrastructure, The Netherlands & Pilot Service Amsterdam IJmond, The Netherlands SBL 21 – p.147
10:35 - 11:00	<i>Prototype measurements of ship behavior while entering locks</i> L.L. Daggett, J.C. Hewlett Waterway Simulation Technology, USA SBL 13 – p.103
11:00 - 11:15	Refreshment break
	SESSION B1: Ship - ship interaction (Chair: Dr. J. Duffy)
11:15 - 11:40	<i>Shallow water effect on the hydrodynamic interaction between two ships with rudder in close proximity</i> M. Sano, H. Yasukawa, K. Kitagawa, S. Yoshida Hiroshima University & JGC Corporation, Japan SBL 15 – p.113
11:40 - 12:05	<i>Real-time simulation of ship-structure and ship-ship interaction</i> O. Lindberg, S.L. Glimberg, H.B. Bingham, A.P. Engsig-Karup, P.J. Schjeldahl FORCE Technology & Technical University of Denmark, Denmark SBL 41 – p.257
12:05 - 12:30	<i>Head-on traffic at the approach channel to the Port of Hamburg</i> K.O.K. Uliczka, C.-U. Böttner, D. Carstens Federal Waterways Engineering and Research Institute (Bundesanstalt für Wasserbau), Germany SBL 28 – p.185
12:30 - 13:30	Lunch

	SESSION E1: Shallow water effects - experimental studies (Chair: Dr. A. Gronarz)
13:30 - 13:55	<i>An experimental investigation of behaviour and hydrodynamic forces acting on a ship in shallow water</i> L. Béguin, P.-E. Guillermin, J.-M. Rousset, M. Weber, S. Lambert, J.-L. Toularastel, L. Davoust Ecole Centrale Nantes - LHEEA, France SBL 31 – p.199
13:55 - 14:20	<i>Free sailing manoeuvres for tuning of analytical shallow water models</i> C.-U. Böttner, K.O.K. Uliczka, D. Carstens, J. Sponholz* Federal Waterways Engineering and Research Institute (Bundesanstalt für Wasserbau), Germany * MTC Marine Training Centre, Hamburg, Germany SBL 27 – p.177
14:20 - 14:45	<i>Experimental investigation on the depth effect of hydrodynamic coefficients obtained by PMM test in square tank</i> H.K. Yoon, S. Kang Dept. Of Naval Arch. & Marine Engineering, Changwon National University, Korea SBL 32 – p.209
14:45 - 15:10	<i>Benchmark HPMM tests for KCS in shallow water</i> D.J. Yeo, K. Yun, Y.G Kim, S.Y. Kim Maritime and Ocean Engineering Research Institute/KIOST, Korea SBL 39 – p.249
15:10 - 15:25	Refreshment break
	SESSION D1: Effects of passing vessels (Chair: Prof. T. De Mulder)
15:25 - 15:50	<i>The effect of berth blockage on berthed ship - passing ship interaction</i> J.T. Duffy, S.P. Denehy, D. Ranmuthugala, M.R. Renilson, Australian Maritime College, Australia & Higher Colleges of Technology, UAE SBL 38 – p. 237
15:50 - 16:15	<i>Evaluation of empirical and numerical methods on the prediction of hydrodynamic loads involved in the passing ship problem</i> R.A. Watai, F. Ruggeri, E.A. Tannuri, J. Weiss Numerical Offshore Tank of the University Of São Paulo (TPN-USP) & São Paulo Institute for Technological Research (IPT), Brazil SBL 25 – p.167
16:15 - 16:40	<i>Passing ship interaction study in Altamira Port (Mexico)</i> I. Verdugo, J.R. Iribarren, R. Atienza, C.B. Cal, L. Pecharroman, I. Trejo Siport 21, Technical Consulting Company, Spain SBL 29 – p.191
16:40 - 17:05	<i>Research on pier site optimization in straight fairway by CFD</i> Y. Xiao, X.L. Xiong, Y.M. Xu, M.J. Liu, X.X. Sheng Wuhan University of Technology & Guangzhou Maritime Safety Administration, China SBL 16 – p.123
17:30 - 19:00	Guided visit to the Adoration of the Mystic Lamb
19:00 - 21:00	Welcome Reception

4 JUNE 2013 (TUESDAY)

8:00 - 08:30	Registration
8:30 - 09:15	Invited Keynote Speech by Chris Coeck, Manager Policy and Strategic Projects, Antwerp Port Authority
	SESSION C1: Manoeuvring (Chair: Prof. M. Vantorre)
09:15 - 09:40	<i>Manoeuvring support system for huge floating offshore structure in confined water with high accuracy DGPS</i> H. Oda, E. Okuyama Akishima Laboratories (Mitsui Zosen) Inc., Tokyo, Japan SBL 11 – p.93
09:40 - 10:05	<i>Hydrodynamic forces on steering device while manoeuvring in confined water</i> A.M. Chetvertakov, D.V. Nikushchenko KM Tech LLC, Kongsberg Group & State Marine Technical University of St. Petersburg (SMTU), Russia SBL 44 – p.275
10:05 - 10:30	<i>Prediction of manoeuvring coefficients of a container ship by numerically simulating HPMM using RANSE based solver</i> R. Rajita Sheno, P. Krishnankutty, R. Panneer Selvam, A. Kulshrestha Department of Ocean Engineering, Indian Institute of Technology, Madras, India SBL 35 – p.221
10:30 - 10:45	Refreshment break
	SESSION E2: Shallow and confined water effects (Chair: Dr. G. Delefortrie)
10:45 - 11:10	<i>Nautical depth sounding - the Rheocable survey method</i> M. Druyts, P. Brabers MDCE bvba & Demco NV, Belgium SBL 19 – p.135
11:10 - 11:35	<i>Wind effect on directional stability of a ship moving in a channel</i> H. Yasukawa, M. Sano, H. Amii Hiroshima University, Japan SBL 10 – p.83
11:35 - 12:00	<i>URANS studies of hydrodynamic performance and slamming loads on high-speed planing hulls in calm water and waves for deep and shallow conditions</i> S.M. Mousaviraad, Z. Wang, F. Stern IIHR-Hydroscience and Engineering, The University of Iowa, Iowa City, USA SBL 9 – p.55
12:00 - 12:25	<i>Impact of ship size on induced waves and currents in confined water</i> S. Doychev, B. Söhnngen Department of Hydraulic Engineering, Federal Waterways Engineering and Research Institute, Karlsruhe, Germany SBL 1 – p.1
12:25 - 13:30	Lunch

	SESSION B2: Interaction - CFD studies / C2: Manoeuvring (Chair: Mr. F. Quadvlieg)
13:30 - 13:55	<i>URANS Studies of ship ship interactions in shallow water</i> P.-C. Wu, H. Sadat-Hosseini, Y. Toda, F. Stern Department of Naval Architecture and Ocean Engineering, Osaka University, Osaka, Japan & IIHR-Hydroscience and Engineering, The University of Iowa, Iowa City, USA SBL 7 – p.19
13:55 - 14:20	<i>Ship to ship interaction investigations with the use of CFD methods</i> A.A. Zubova , D.V. Nikushchenko State Marine Technical University & Kongsberg Maritime, Saint Petersburg, Russia SBL 37 – p.231
14:20 - 14:45	<i>URANS studies of WAM-V multi-body dynamics in calm water and waves</i> S.M. Mousaviraad, S. Bhushan, F. Stern IIHR-Hydroscience and Engineering, The University of Iowa, Iowa City & Center for Advanced Vehicular Systems, Mississippi State University, Starkville, USA SBL 8 – p.37
14:45 - 15:10	<i>Ship manoeuvring behaviour in crossing current</i> K. Hasegawa, K.-G. Oh, Y.A. Ahmed, P. Rigo Osaka University, Japan & Liège University, Belgium SBL 47 – p.301
15:10 - 15:25	Refreshment break
	SESSION A2: Ship Behaviour in Locks (Chair: Prof. P. Rigo)
15:25 - 15:50	<i>The Seine-Scheldt project: Nautical accessibility of a new lock in Harelbeke</i> J. Verwilligen, E. Maes, K. Eloot Flanders Hydraulics Research & Waterwegen en Zeekanaal NV, Upper Scheldt Division, Belgium SBL 46 – p.291
15:50 - 16:15	<i>A virtual bottom for locks</i> P. Sergeant, E. Lefrançois, P. Debaillon, N. Mohamad CETMEF, Compiègne, France ; Université de Technologie de Compiègne, Laboratoire Roberval, Compiègne, France ; DREAL, Rouen France ; Marine Engineering Department, Tishreen University, Syrian Arab Republic SBL 3 – p.7
16:15 - 16:40	<i>Experimental investigation of mooring forces in an inland navigation lock : comparison between through the head and longitudinal filling systems</i> T. Heinz, D. Christiaens, D. Bousmar Institute of Mechanics, Materials and Civil Engineering, Université catholique de Louvain & Hydraulic Research Laboratory, Service Public de Wallonie, Belgium SBL 42 – p.265
16:40 - 17:05	<i>On a pragmatic force criterion for the design of a navigation lock filling and emptying system</i> K. Verelst, J. Vercruysse, T. De Mulder Flanders Hydraulics Research & Civil Engineering Department, Ghent University, Belgium SBL 49 – p.325
17:30 - 19:00	Boat trip in Ghent
19:00 - 23:00	Conference Dinner at the Medieval Castle of the Counts

5 JUNE 2013 (WEDNESDAY)

08:00 - 08:30	Registration
	SESSION A3: Ship Behaviour in Locks (Chair: Dr. C. Thorenz)
08:30 - 08:55	<i>Behaviour of ships approaching and leaving locks: open model test data for validation purposes</i> M. Vantorre, G. Delefortrie Maritime Technology Division, Ghent University, Belgium & Flanders Hydraulics Research, Belgium SBL 50 – p.337
08:55 - 09:20	<i>Numerical study on hydrodynamic behaviour of ships sailing in locks</i> H.-Z. Wang, Z.-J. Zou School of Naval Architecture, Ocean & Civil Engineering & State Key Laboratory of Ocean Engineering, Shanghai Jiao Tong University, China SBL 17 – p.129
09:20 - 09:55	<i>Hydrodynamics of a ship while entering a lock</i> T. Vergote, K. Eeloot, M. Vantorre, J. Verwilligen DEME & Flanders Hydraulics Research & Maritime Technology Division, Ghent University, Belgium SBL 45 – p.281
09:55 - 10:20	<i>The use and validation of OpenFOAM to determine the lateral and longitudinal forces exerted on a vessel in the lock and in the lock approach</i> A. de Loor, A.J. van der Hout, O.M. Weiler, W.C.D. Kortlever Deltares & Rijkswaterstaat, Centre for Infrastructure, The Netherlands SBL 22 – p.157
10:20 - 10:35	Refreshment break
	SESSION A4: Ship Behaviour in Locks (Chair: Dr. L. Daggett)
10:35 - 11:00	<i>Activities of PIANC Working Group 155: Ship behaviour in locks and lock approaches</i> C. Thorenz Federal Waterways Engineering and Research Institute (BAW), Karlsruhe, Germany SBL 12 – p.99
11:00 - 11:25	<i>Lock manoeuvres: practical cases in Europe and Panama</i> K. Eeloot, M. Vantorre, J. Verwilligen, D. Bus, R. Cleeren, E. Gheyle, E. Veche, E. Heugen, J. Van Drongelen, R. Salas, R. Detienne Flanders Hydraulics Research; Ghent University, Maritime Technology Division; Flemish Pilotage, Belgium; Station de Pilotage, Dunkerque, France; DutchPilotage, The Netherlands; Panama Canal Pilots, Panama; Brabo, Belgium SBL 48 – p.309
11:25 - 11:50	<i>Real-time simulation of ships manoeuvring in locks</i> R. Henn DST - Development Centre for Ship Technology and Transport Systems, Duisburg, Germany SBL 33 – p.215
11:50 - 12:00	Closing Words by Marc Vantorre, Professor at Ghent University, Maritime Technology Division
12:00 - 13:30	Bus trip to Antwerp and lunch
13:30 - 18:00	Afternoon technical visits to the Berendrecht lock and to the Left Bank lock under construction
18:30	Bus stop at Antwerp Berchem railway station. Here you can take the train to Brussels National Airport (30min)
19:30	Back in Ghent

6 JUNE 2013 (THURSDAY)

10:00 - 12:00	Visit to Flanders Hydraulics Research with particular attention for the model of the new Panama Canal locks
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