



Knowledge Centre  
Ship Manoeuvring  
in Shallow and Confined Water

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## Second International Conference on Ship Manoeuvring in Shallow and Confined Water: Ship-to-Ship Interaction

Marine Technology Centre,  
Otto Nielsens vei 10, Trondheim, Norway

### CONFERENCE PROGRAMME

The following programme contains hyperlinks to the disclosed presentations. The presentations are compressed as .zip files and are password protected. The password was sent to the authors and participants of the conference.

#### FIRST DAY: 18 May 2011 (Wednesday)

8:00-9:00	<b>Registration</b>
9:00-9:15	<b>Opening address:</b> Ingvald Strømmen, Professor at NTNU, Dean of Faculty of Engineering Science and Technology ( <a href="#">PPT</a> )
9:15-10:00	<b>Invited Keynote Speech</b> by Cal Hayden, Vice-President, Fleet Operations, SPT Inc. <i>Ship to Ship Transfers – a global service</i> ( <a href="#">PPT</a> )
	<b>SESSION J1: Interaction Ship – Floating bodies</b> (Chair: Prof. E. Pedersen)
10:00-10:30	<i>Seabase model tests and surface effect ship code evaluation for T-craft</i> A.L. Silver, M.J. Hughes, R.C. Bishop, S.S. Lee, D.W. Wundrow, J.F. O’Dea ( <a href="#">PPT</a> )
10:30-10:50	<b>Refreshment break</b>
	<b>SESSION A1: Lightering</b> (Chair: Prof. E. Pedersen)
10:50-11:20	<i>Ship to ship interaction forces during lightering operations</i> E. Lataire, M. Vantorre, J. Vandembroucke, K. Eloit ( <a href="#">PPT + videos</a> )
11:20-11:50	<i>Hydrodynamic interaction loads between two ships during lightering operation in calm water</i> X. Xiang, R. Skejic, O. Faltinsen, T. E. Berg ( <a href="#">PPT + videos</a> )
11:50-12:20	<i>A new approach in modelling the interaction forces</i> A. Gronarz ( <a href="#">PPT</a> )
12:20-13:30	<b>Lunch</b>

	<b>SESSION F1: Overtaking and meeting in channels and canals</b> (Chair: Dr. J. Duffy)	<b>SESSION I1: Squat</b> (Chair: Prof. K.-P. Rhee)
13:30-14:00	<i>The influence of different vessel speeds of navigation on meeting in navigable channels of hydro system Danube-Tisa-Danube</i> V. Škiljaica, I. Škiljaica, M. Živković (PPT)	<i>Optimisation of trim with respect to squat and under-keel-clearance</i> T. Berndt, J. Reinking, A. Laupichler, A. Härting (PPT)
14:00-14:30	<i>Improved simulation model and methods for determination of the required passing distance between ships in restricted fairways</i> K. Benedict, W. Köpnick, M. Baldauf, A. Gronarz, B. Friedhoff, F. de Mello Petey (PPT + videos)	<i>Ship Squat Comparison and Validation Using PIANC, Ankudinov and BNT Predictions</i> M. J. Briggs, P. J. Kopp, V. Ankudinov, A. L. Silver (PPT)
14:30-15:00	<i>Interaction-A practical viewpoint</i> G. Maxwell (PPT + videos)	<i>Squat during ship-to-ship interactions in shallow water</i> K. Eloot, M. Vantorre, J. Verwilligen (PPT)
15:00-15:30	<b>Refreshment break</b>	
	<b>SESSION L1: Experimental investigations of interaction</b> (Chair: Prof. K. Benedict)	<b>SESSION H1: Shallow and confined water effects</b> (Chair: Prof. K. Eloot)
15:30-16:00	<i>Hydrodynamic interaction of two thin ships with rudder in close proximity</i> H. Yasukawa, S. Yoshida (PPT)	<i>CFD Prediction and validation of ship-bank interaction in a canal</i> L. Zou, L. Larsson, G. Delefortrie, E. Lataire (PPT)
16:00-16:30	<i>Integration and testing of STS decision-support system in a ship maneuvering simulator</i> D. Husjord, T. A. Øritsland, E. Pedersen (PPT)	<i>An experimental research on the hydrodynamic forces acting on a twin-screw ferry during unberthing</i> S. Lee, J. Park, K.-P. Rhee, W. Yoo (PPT)
16:30-17:00	<i>A comparative study of PIV experiments and numerical simulations of flow fields around two interacting ships</i> T. Arslan, B. Pettersen, J. Visscher, C. Muthanna, H.I. Andersson (PPT + videos)	<i>The importance of the form of time domain forces and moments on berthed ship interaction</i> J. T. Duffy, M. R. Renilson (PPT)

## SECOND DAY: 19 May 2011 (Thursday)

8:15-09:15	<b>Registration</b>
9:15-10:00	<b>Invited Keynote Speech</b> by Odd Faltinsen, Professor at NTNU, <i>Modeling of ship-ship interaction</i> (PPT not disclosed)
	<b>SESSION F2: Overtaking and meeting in channels and canals</b> (Chair: Prof. M. Vantorre)
10:00-10:30	<i>Post widening ship/ship interaction and operational decisions in the Panama Canal</i> L.L. Daggett; J.C. Hewlett; R.S. Gray (PPT)
10:30-11:00	<i>Numerical investigation on ship-ship hydrodynamic interaction in restricted waters</i> C. Zhang, Z. Zou (PPT)
11:00-11:20	<b>Refreshment break</b>
	<b>SESSION E1: Moored and passing vessels</b> (Chair: Prof. B. Pettersen)
11:20-11:50	<i>Prediction of hydrodynamic interaction effects of vessels in ports</i> J. A. Pinkster (PPT)

11:50-12:20	<p><i>Calculation of forces on moored ships due to passing ships</i> W. van der Molen, P. Swiegers, J. Moes, M. Vantorre <b>(PPT)</b></p>	
12:20-12:50	<p><i>The use of a Boussinesq-type wave model to determine ship-induced waves over non-uniform bathymetries</i> A. van der Hout, O. Weiler, M. Borsboom <b>(PPT + videos)</b></p>	
13:00-14:20	<b>Lunch</b>	
	<b>SESSION A2: Lightering – Operational aspects</b> (Chair: Dr. T.E. Berg)	<b>SESSION H2: Shallow and confined water effects</b> (Chair: Prof. J. Pinkster)
14:30-15:00	<p><i>Relative distances and speeds measurement system for STS lightering operations using stereo-cameras</i> E. Shimizu, E. Pedersen <b>(PPT)</b></p>	<p><i>Prediction of linear hydrodynamic derivatives in shallow water</i> Y. Furukawa; Y. Nakiri; K. Kijima <b>(PPT)</b></p>
15:00-15:30	<p><i>Decision support system in ship-to-ship operations using high accuracy DGPS</i> E. Okuyama, H. Oda, E. Shimizu <b>(PPT)</b></p>	<p><i>A study on estimation of hydrodynamic forces acting on a ship hull in shallow water by CFD</i> Y. Kimura, E. Kobayashi, Y. Tahara, S. Koshimura <b>(PPT)</b></p>
15:30-16:00	<p><i>Critical elements of a lightering operation</i> G. Gudmundseth <b>(PPT)</b></p>	<p><i>New thinking on ship generated hydrodynamic fields: Introducing concepts for predicting bank suction and rejection</i> P. J. McArthur <b>(PPT)</b></p>
16:00-16:15	<b>Refreshment break</b>	
	<b>SESSION A3: Lightering – Operational aspects</b> (Chair: Dr. T.E. Berg)	<b>SESSION H3: Shallow and confined water effects</b> (Chair: Dr. A. Gronarz)
16:15-16:45	<p><i>Decision-support system for STS training on ship handling simulator by means of visualization of danger zone due to hydrodynamic interaction</i> K. Kirimoto, E. Pedersen <b>(PPT)</b></p>	<p><i>Numerical investigation of bank influence on a ship motion</i> A.M. Chetvertakov, M.P. Lebedeva, D.V. Nikushchenko <b>(PPT + videos)</b></p>
16:45-17:15	<p><i>Advanced ship manoeuvring and mooring support system at ship-to-ship transfer operations by fender monitoring system of pneumatic fenders</i> S. Sakakibara, S. Yamada, E. Shimizu, E. Okuyama, H. Oda <b>(PDF)</b></p>	<p><i>URANS studies of ship-ship interactions in shallow water</i> H. Sadat-Hosseini, P.-C. Wu, Y. Toda, P. Carrica, F. Stern <b>(PPT + videos)</b></p>

### THIRD DAY: 20 May 2011 (Friday)

08:00-08:30	<b>Registration</b>	
	<b>SESSION M1: Interaction – CFD studies</b> (Chair: Dr. R. Skejic)	<b>SESSION G1: Ship – tug interaction</b> (Chair: Prof. K. Kijima)
08:30-09:00	<p><i>Numerical study of ship-to-ship interaction forces on the basis of various flow models</i> J.M.A. Fonfach; S. Sutulo; C. Guedes Soares <b>(PPT)</b></p>	<p><i>Interaction forces in tug operations</i> S. Geerts, M. Vantorre, K. Eloit, R. Huijsmans, N. Fierens <b>(PPT)</b></p>
09:00-09:30	<p><i>URANS studies of ship-ship interactions in calm water and oblique waves for replenishment and overtaking conditions</i> S.M. Mousaviraad, S.H. Sadat-Hosseini, P. Carrica, F. Stern <b>(PPT + videos)</b></p>	<p><i>Slack towline on tow-towed ships interaction during maneuvering</i> A. Fitriadhy, H. Yasukawa, Y. Masaki <b>(PPT)</b></p>

09.30-10:00	<i>Study on the effects of unsteady ship to ship interaction by CFD method</i> H. Yang, B.S. Wu, Q.M. Miao, X. Xiang , T. E. Berg, X.F. Kuang <b>(PPT)</b>	<i>Dynamic interaction between tow and towed ships in head seas</i> Y. Nakayama, J. Watanabe, H. Yasukawa <b>(PPT)</b>
10:00-10:30	<b>Refreshment break</b>	
	<b>SESSION J2: Interaction Ship – Floating bodies / Session B1 : Replenishment</b> (Chair: Dr. L. Daggett)	<b>SESSION G2: Ship – tug interaction / SESSION I2: Squat</b> (Chair: Prof. M. Vantorre)
10:30-11:00	<i>Investigating ship maneuvers around a floating structure under the influence of a uniform current in deep and calm water</i> R. Skejic, M. Breivik, T. E. Berg <b>(PPT + videos)</b>	<i>CFD based prediction of ship-ship interaction forces on a tug beside a tanker</i> C. D. Simonsen, C. K. Nielsen, J. F. Otzen, K. Agdrup <b>(PPT not disclosed)</b>
11:00-11:30	<i>Using dynamic positioning for side-by-side cargo transfer operations</i> F.H.H.A. Quadvlieg, R. Hallmann, G. Hughes, D.H. Harris <b>(PDF)</b>	<i>Squat computation for container ships in restricted waterways</i> A. von Graefe, B. El Moctar, V. Shigunov, H. Söding, T. Zorn <b>(PPT)</b>
11:30-12:00	<i>Simulation of the Launch/Recovery of a Submersible from a Host ship</i> D. Cassidy, P. Carrica, M. Hyman <b>(PPT + videos)</b>	<i>Squat of ships sailing in a non centered track in a canal</i> H. J. de Koning Gans <b>(PPT)</b>
12:00-12:15	<b>Closing Remarks</b> by Marc Vantorre, Professor at Ghent University	
12:30-13:45	<b>Lunch</b>	
14:00-17:00	<b>Afternoon visits</b>	