MARIN



PROCEEDINGS

International Standing Committee Members

Dr. V. Belenky Prof. M. Pawlowski Mr. H. Bruhns Prof. L. Perez-Rojas Prof. A. Degtyarev Prof. M. Neves Prof. A. Francescutto Prof. M. Renilson Prof. Y. Ikeda Prof. K. Spyrou Dr. J.O. de Kat (Chairman) Prof. N. Umeda Prof. A. Papanikolaou Prof. D. Vassalos

Local Organising Committee

Dr. F. van Walree, Ms. P. Roseboom and Ms. E.A. te Winkel

Sponsor

Maritime Research Institute Netherlands

Previous Workshops

- 1995 Glasgow, UK
- 1996 Osaka, Japan
- 1997 Hersonissos, Greece
- 1998 St. John's, New Foundland, Canada
- 2001 Trieste, Italy
- 2002 Glen Cove, New York, USA
- 2004 Shanghai, China
- 2005 Istanbul, Turkey
- 2007 Hamburg, Germany
- 2008 Daejeon, Republic of Korea

Contents

Session 1	Goal-Based Stability Standards (Intact)		Page
Paper 1	Current Status of New Generation Intact Stability Criteria Development	A. Francescutto and N. Umeda	1-5
Paper 2	On Vulnerability Criteria for Righting Lever Variations in Waves	W.S. Peters, V. Belenky and C.C. Bassler	6 - 16
Paper 3	Designing New Generation Intact Stability Criteria on Broaching Associated with Surf-Riding	N. Umeda and S. Yamamura	17 - 25
Paper 4	Research towards Goal Based Standards for Container Shipping	V. Shigunov, H. Rathje and O. El Moctar	26 - 31
Session 2	Goal-Based Stability Standards (Damage)		
Paper 1	Going Forward with Safe Return to Port	J. Dodman	32 - 37
Paper 2	Damage Stability of Ro-Pax Ships with Water-on- Deck	A.L. Scott	38 - 45
Paper 3	GOALDS - Goal Based Damaged Stability	A. Papanikolaou et al	46 - 57
Paper 4	Damage Stability Making Sense	D. Vassalos	
Session 3	Special problems		
Paper 1	Application of Wave Groups to Assess Ship Response in Irregular Seas	C.C. Bassler, V. Belenky and M.J. Dipper	58 - 66
Paper 2	Risk Based Analysis of Inland Vessel Stability	M. Hoffman and I. Bačkalov	67 - 72
Paper 3	Melnikov's Method Applied to a Multi-DOF Ship Model	W.Wu and L. McCue	73 - 78
Paper 4	Freak waves and capsizing accidents	T.Waseda and T.Kinoshita	79 - 84

Session 4	Risk-based analysis methods		Page
Paper 1	Assessment of Short-Term Risk with Monte-Carlo Method	B. Campbell and V. Belenky	85 - 92
Paper 2	Tolerable Capsize Risk of a Naval Vessel	A. Peters	93 - 107
Paper 3	Climatic Spectra and Long-Term Risk Assessment	A.B. Degtyarev and V.V. Mareev	108 - 114
Paper 4	Integrated Approach Towards Intact and Damage Stability	K. Spyrou	-
Session 5	Naval Ship Stability		
Paper 1	Developing a Shared Vision for Naval Stability Assessment	D. Perrault. T. Hughes and S. Marshall	115 - 120
Paper 2	Approaches for Evaluating Dynamic Stability in Design	P.R. Alman	121 - 128
Paper 3	Operator Guidance for French Mine Hunters	J.F. LeGuen	129 - 133
Paper 4	Landing Craft Stability Standard	J. Atkins, S. Marshall and N. Noel-Johnson	134 - 142
Session 6	Safety of Damaged Vessels		
Paper 1	On the Time Dependent Survivability of RoPax Ships	D.A. Spanos and A. Papanikolaou	143 - 147
Paper 2	Comparison of s-factor according to SOLAS and SEM for Ro-Pax vessels	M. Pawlowski	148 - 152
Paper 3	A study on the damage stability requirements for Ro-Ro passenger ships	Y. Ogawa and S. Takeda	153 - 158
Paper 4	FLOODSTAND: Integrated Flooding Control and Standard for Stability and Crisis Mangement	R. Jalonen et al	159 - 165

11th International Ship Stability Workshop | **2010**

Session 7	Developments in Intact and Damage Stability Modeling		Page
Paper 1	Calculation method to include water on deck effects	N. Carette and F. van Walree	166 - 172
Paper 2	An Approach to the Validation of Ship Flooding Simulation Models	E. Ypma and T. Turner	173 - 184
Paper 3	CFD Applications to Damage Stability Modeling	Z. Gao	-
Paper 4	TEMPEST: A New Computationally Efficient Dynamic Stability Prediction Tool	W.F. Bellknap and A.M. Reed	185 - 197
Session 8	Operational safety		
Paper 1	Heavy Weather Ship-Handling Bridge Simulation	S. Marshall	198 - 201
Paper 2	Further Perspectives on Operator Guidance and Training for Heavy Weather Ship Handling	L.J. Van Buskirk, J. McTigue and P.A. Alman	202 - 208
Paper 3	Structural Failure & Progressive Flooding due to Collision/Grounding in Extreme Environments	S. Kwon and D. Vassalos	-
Paper 4	Decision Support for Crisis Management and Emergency Response	A. Jasionowski	209 - 216
Session 9	Roll Damping		
Paper 1	A Method to Model Large Amplitude Ship Roll Damping	C.C. Bassler, A.M. Reed and A.J. Brown	217 - 224
Paper 2	Some Topics for Estimation of Bilge Keel Component of Roll Damping	T. Katayama et al	225 - 230
Paper 3	Approximation of the Non-Ilnear Roll Damping	M. Pawlowski	231 - 237
Paper 4	Uncertainty Assessment in Experiments on a Floating Body in Forced Roll Motion in Calm Water	J. Chichowicz et al	

Session 10	Flooding of damaged ships		Page
Paper 1	Flooding Simulations of ITTC and Safedor Benchmark test cases using CRS Shipsurv Software	P. Corrignan and A. Arias	238 - 245
Paper 2	Study on the motions and flooding process of a damaged ship in waves	S.K. Cho et al	246 - 254
Paper 3	An Application of the DOE Methodology in Damage Survivability	C. Khaddaj-Mallat et al	255 - 261
Paper 4	The Capsize Band Concept Revisited	N. Tsakalakis, J. Cichowisz and D. Vassalos	262 - 271
Session 11	Parametric roll		
Paper 1	A Critical Assessment of Ship Parametric Roll Analysis	H. Moideen and J. Falzarano	272 - 279
Paper 2	On the prediction of parametric roll	M. Gunsing and R.P. Dallinga	280 - 287
Paper 3	Integrity Diagrams of the Ship/U-Tank System Undergoing Parametric Rolling	M.A.S. Neves et al	288 - 294
Paper 4	A study on Quantitative Prediction of Parametric Roll in Regular Waves	H. Hashimoto and N. Umeda	295 - 301