

Historical note

**Historical Roots of the Theory of Hydrostatic Stability of Ships**

H. Nowacki and L. D. Ferreiro ..... 1

Accident investigation

**Investigation into the Sinking of the Ro-Ro Passenger Ferry EXPRESS SAMINA**

Papanikolaou, D. Spanos, E. Boulougouris, E. Eliopoulou, A. Alissafaki ..... 2

**A Study on Factors Related to the Capsizing Accident of a Fishing Vessel “RYUHO MARU no.5”**

H. Taguchi, S. Ishida, I. Watanabe, H. Sawada, M. Tsujimoto, Y. Yamakoshi and N. Ma ..... 3

Water on deck

**Nonlinear Roll with Water-on-Deck: Numerical Approach**

V. L. Belenky, K. M. Weems, D. Liut and Y.S. Shin. .... 4

**Investigation into the Effects of Shallow Water on Deck on Ship Motions**

T.A. Santiago and C. Guedes..... 5

Extreme weather effects

**Green Sea Loads on General Cargo Ship**

Y. Ogawa, R. Matsunami, M. Minami, K. Tanizawa, M. Arai, A. Kumano and R.Miyake. .... 6

**Lashing of Trailers on – Board Ro/Ro Ships under Intensive Rolling**

N. Themelis and K.J. Spyrou, ..... 7

Unconventional vessels

**Study of the Dynamic Stability of an Underwater Vehicle**

J. Fernández-Ibarz, A. Lamas and F. López-Peña ..... 8

**Damage Stability of Tension Leg Platform in Ice Environment**

S.L. Karlinsky and M.A. Kuteinikov ..... 9

**Assessment of Superstructure Effect upon the Submarine Stability in Surface**

**Condition in Heavy Seas**

A. V. Efimov, V.O. Mrykin and A. I. Baranov ..... 10

Design for safety

**Working Towards the Design of Safer Ships and Pragmatic Support for safe Operation**

H. Cramer ..... 11

**A Risk-Based Method for Ship Safety Assessment at the Preliminary Design Stage**

M. Gerigk ..... 12

**Intact and Damage Stability Assessment for the Preliminary Design of a Passenger Vessel**

C. Arias, J. Herrador and F.del Castillo ..... 13

Damage stability

**On the Probabilistic Subdivision of the Ships**

C. Bertorello, S. Caldarella and P. Cassella ..... 14

**Numerical Prediction of the Dynamic Behavior of a Ro-Ro Ship After a Hull Side Damage**

V. González, M. Talens, J. M. Riola, J. Valle, T. Quesada and M. Espín. .... 15

**Seakeeping Basin Tests for Survivability and Evacuation of Ships**

A. Marón, E. Tsyckkova, P. Ekman, M.E. Prieto, C. Gutiérrez and M. Taboada. .... 16

Large passenger vessels safety

**Experimental Studies on Transient Motion and Time to Sink of a Damaged Large Passenger Ship**

Y. Ikeda, S. Shimoda and Y. Takeuchi. .... 17

<b>Experimental Evaluation of the Parameters for the Weather Criterion</b>	
G. Bertaglia, A. Serra, A. Francescutto and G. Bulian. ....	18
<b>Towards the Performance Based Approach for Stability of Cruise Vessels</b>	
O. Turan and C. Tuzcu. ....	19
<i>Parametric rolling</i>	
<b>Nonlinear Dynamics on Parametric Roll Resonance with Realistic Numerical Modelling</b>	
N. Umeda, H. Hashimoto, D. Vassalos, S. Urano and K. Okou. ....	20
<b>Hull Design Considerations for Improved Stability of Fishing Vessels in Waves</b>	
M. A. S. Neves, N. A. Pérez, O. M. Lorca and C. A. Rodríguez. ....	21
<b>On the Nonlinear Modeling of Parametric Rolling in Regular and Irregular Waves</b>	
G. Bulian, A. Francescutto and C. Lugni. ....	22
<b>Probabilistic Analysis of Roll Parametric Resonance in Head Seas</b>	
V.L. Belenky, K.M. Weems and J.R. Paulling. ....	23
<b>On the Effects of Wave Amplitude, Dumping and Initial Conditions on the Parametric Roll Resonance</b>	
J. Matusiak. ....	24
<b>Time Domain Simulation of a Coupled Parametrically Excited Roll response in Regular and Irregular Head Seas</b>	
S. Riveiro, T. A Santos and C. Guedes. ....	25
<i>Regulatory aspects</i>	
<b>Software Developer's Perspective of Stability Criteria</b>	
P. Couser. ....	26
<b>Equilibrium, Ballast Control and Free-Surface Effect Computations Using the SSTAB System</b>	
L. C. Gomes-Coelho, C. Gomes-Jordani, M. Costa de Oliveira and I. Quaresma-Masetti ....	27
<b>Hybrid Probabilistic Approach to Watertight Subdivision of Passenger Ships – Application of ‘Local Subdivision Index’</b>	
H. Vermeer. ....	28
<b>MARPOL 25a: Is It Safety or Absurdity?</b>	
A. Y. Odabasi and M. Taylan ....	29
<b>Development of Factor-s: the Damage Survival Probability</b>	
C. Tuzcu. ....	30
<b>IMO Developments on Intact and Damage Stability: The Work of the SLF Sub-committee</b>	
M. Palomares. ....	31
<i>Environmental modelling</i>	
<b>Deterministic Analysis of Extreme Roll Motions Using Tailored Wave Sequences</b>	
G. F. Clauss, J. Hennig. ....	32
<b>Innovative Deterministic Seakeeping Test Procedures</b>	
J. Hennig and W. L. Kuehnlein. ....	33
<i>Human factors</i>	
<b>A Generic Management System Approach to Ship Operational Stability</b>	
C. Kuo. ....	34
<i>Safety in operations</i>	
<b>Predicting the Ability of Survival after Damage in Tankers</b>	
J. Poblet-Martínez and J. J. Díaz-Yraola. ....	35
<b>Use of High Performance Computer Technologies at the Organization of Onboard Computing System</b>	

A. Degtyarev .....	36
<i>Nonlinear dynamics</i>	
<b>Large Amplitude Rolling in a Realistic Sea</b>	
A. Francescutto and S.Naito. ....	37
<b>Parametric Excitation of Floating Offshore Platforms</b>	
J. Falzarano, J. Cheng and S. Das. ....	38
<b>The Effect of Coupled Heave/Heave Velocity or Sway/Sway Velocity Initial Conditions on Capsize Modelling</b>	
L.S. McCue and A.W. Troesch. ....	39
<i>Unconventional problems</i>	
<b>Criteria of Bow-Diving Phenomena for Planing Craft</b>	
T. Katayama, K. Tamura and Y. Ikeda. ....	40
<b>The Investigation of the Save Basin Erosion under the Action of Irregular Waves</b>	
X. Huang. ....	41
<b>Freak Waves Generation and their Probability</b>	
L.J. Lopatoukhin, A.V. Boukhanovsky and V.A. Rozhkov. ....	42
<i>Intact stability</i>	
<b>Capsizing Due to Bow-Diving</b>	
A. Matsuda, H. Hashimoto and N. Umeda. ....	43
<b>Broaching Prediction with Nonlinear Heel-Induced Hydrodynamic Forces Taken into Account</b>	
H. Hashimoto, N.Umeda and A. Matsuda. ....	44
<b>Model Test for Validation of Calculated Wave-Induced Excitations on a Ship in Following and Quartering Waves</b>	
J. Hua, S. Abrahamsson and L. Byström. ....	45
<b>Issues on the Numerical Modeling of Wave-Induced Forces on a Ship in Following/Quartering Waves</b>	
J. Hua and O. Lundbäck. ....	46
<i>Antirolling devices.</i>	
<b>A Study on Complicated Roll Motion of a Ship Equipped with an Anti-Rolling Tank</b>	
H. Taguchi, H. Sawada and K. Tanizawa. ....	47
<b>Investigation of Anti-Roll Tanks Using a Particle Method</b>	
A. Souto-Iglesias, L. Pérez-Rojas and L. Delorme. ....	48
<i>Fishing vessels</i>	
<b>Forecasting of Rolling Motion of Small Fishing Vessels under Fishing Operation Applying a Non-Deterministic Method</b>	
N. Kimura and K. Amagai . ....	49
<b>Some Experimental Results on the Stability of Fishing Vessels</b>	
L. Pérez-Rojas, R. Abad, F. Pérez-Arribas and C. Arias. ....	50
<b>Roll Damping Characteristics of Fishing Boats with and without Drift Motion</b>	
B. Ali, T. Katayama and I. Ikeda. ....	51
<b>Relation Between Freeboard and Capsizing Risk for Fishing Vessels</b>	
T. Kuroda, A. Matsuda, H. Hashimoto and R. Shigehiro. ....	52
<i>Ship motions in waves</i>	
<b>Seakeeping Correlation Studies</b>	
D. Bass, D. Cumming, D. Hopkins, N. Bose and B. Carroll. ....	53

<b>The Influence of the List Angle on the Second Order Rolling Moment of a List Ship in Random Waves</b>	
G. Miao, J. Fan, R. Zhu and X. Huang. ....	54
<i>Workshop on Intact stability</i>	
<b>Weather Criterion – Questions and Answers</b>	
D. Vassalos, A. Jasionowski and J. Cichowicz. ....	55
<b>Toward an Overall Dynamic Stability Assessment in Following Seas</b>	
T. Lilienthal and T. Gourlay. ....	56
<i>Workshop on Damaged stability</i>	
<b>Survivability of a Damaged Frigate in Waves - A Probabilistic Approach</b>	
L. Palazzi and J. de Kat. ....	57
<b>Cross-Flooding Design Using Simulations</b>	
A. J. Peters, M. Galloway and P.V. Minnick. ....	58
<b>New Insights into Ship-Floodwater-Sea Dynamics</b>	
L. Letizia, D. Vassalos and A. Jasionowski. ....	59
<i>Workshop on Fishing vessels</i>	
<b>Developing an Artificially Intelligent Roll Stabilization System for use on Fishing Vessels</b>	
B. Webster, R. Birmingham, E. Jones and T. Rosikilly ....	60
<i>Workshop on Risk based approaches</i>	
<b>Capsizing Scenarios and Hazard Identification</b>	
L. Kobylinski. ....	61
<b>Development of a Methodology for Assessment of Ship Safety – Motivation, Background and Worked Example</b>	
J. Tellkamp and I. Oestvik. ....	62
<i>Others</i>	
<b>A formulation and Preliminary Results for Simulation of Ship Motions Coupled Heave, Pitch and Roll</b>	
J. Xia and S.Fan ....	63
<b>Comparative Damage Stability and Survability Performance Analysis of Conventional and Podded Ropax Vessels</b>	
O. Turan, A. I. Ölçer, T. Dahlberg, B. Türkmen and C. Tuzcu ....	64
<b>Criteria Basis for Estimation of Capsizing Danger in Broaching Extreme Situation for Irregular Following Waves</b>	
Y. Nechaev and O. Zavyalova ....	65
<b>A Study of the Performance of WDP in the Beam Sea as a Roll-Damping Device</b>	
Y. Terao, M. Yamamoto and S. Ogisu ....	66