

The 2nd International Conference on Design for Safety
Plan of the sessions (version: 26August 2004)

Philosophy/Framework on Design for Safety

Coordinators: D. Vassalos (UK, NA-ME) & I. Watanabe(NMRI, Japan)

- Keynote Speaker: Tom Allan (UK MCA, chairman of MSC)
- Keynote Speaker: Dracos Vassalos (UK, NA-ME) "Risk-Based Design: From Philosophy to Implementation"
- Keynote speaker: Paul Cojeen (US Coast Guard)
- Keynote Speaker: Yukio Ishida (Director General of Safety Standards Division, Japan's Ministry of Land, Infrastructure and Transport)
- Keynote Speaker: Mr. Yukio Tsudo, (Executive Vice President of Nippon Kaiji Kyokai (Class NK)) and Hiroshi Konishi (Class NK). "Development of IACS Common Structural Rules in line with IMO Goal Based Standards".
- Keynote Speaker: Pierre Sames (Germanischer Lloyd) "Design/Operation/Regulation for Safety - SAFEDOR"
- " Safety Considerations in Naval Ship Design " by O. Andrews (UCL, UK)

(7 papers)

Methodology/ Application on Design for Safety

Coordinators:[R. Skjong(DNV, Norway),] H. Yamato(Univ. of Tokyo, Japan)

- "Creating a Framework for Risk Based Design" by R. W. Birmingham (U. Newcastle, UK) offered paper.
- "Safety levels of Japan flagged ships evaluated by risk assessment" by Fujio Kaneko (NMRI, Japan), Hideki Miyazaki (NMRI, Japan), Noboru Ando (MLIT, Japan)
- "Evaluation of Occurrence Frequencies of Marine Accidents in the FSA Framework" by Takeshi Matsuoka, Nobuo Mitomo, Fujio Kaneko (NMRI, Japan)
- "SURVIVABILITY-WEIGHTED FLOODABLE SURFACES - A PROBABILISTIC APPROACH TO OPTIMAL HULL SUBDIVISION" by Daria Cabaj, Cantekin Tuzcu, Maciej Pawlowski, Dracos Vassalos (NA-ME, UK)

(4 papers)

Ship Stability Safety Session

Coordinators: A. Francescutto (U. Trieste, Italy) & N. Umeda (Osaka U., Japan)

- Keynote speaker: "Goal-based new ship design and construction standards" by Alex Carcantzos (SLF Chairman) invited paper
- Probabilistic damage stability criteria: "Impact of New Damage Stability Regulations on Ship Design" by A. D. Papanikolaou & E. Eliopoulou (NTUA) invited paper
- Intact stability code: "Experiment-Supported Weather Criterion and Its Design Impact on Large Passenger Ships" by Alberto Francescutto (Trieste), Naoya Umeda (Osaka), Andrea Serra (Fincantieri), G. Bullian (Trieste) and D. Paroka (Osaka). invited paper .
- HSC code: "The development of model testing and numerical simulation techniques for the safety assessment of High Speed Craft" by Jan O. de Kat, Frans van Walree (MARIN) and Andy Peters (QinetiQ). invited paper.
- Fishing vessel safety: "Some Aspects of Fishing Vessel Stability Safety in Japan" by Ning Ma (NRIFE). Harukuni Taguchi (NMRI) and others. invited paper.
- "Methodology for the rational revision of load line convention from the technical point of view" by Yoshitaka Ogawa (NMRI), Shigesuke Ishida (NMRI) and Shunjiro Takahashi (Class NK, Japan). offered paper.
- "Limits of Stability of Ships Subjected to Strong Parametric Excitation in Longitudinal Waves" by Marcelo A. S. NEVES, Claudio A. RODRIGUEZ (Univ. Rio de Janeiro, Brazil) offered paper.
- "Probability of the capsize of a vessel on random beam waves " by Xianglu Huang (Shanghai Jiao Tong Univ., China) offered paper.
- "A study about characteristics of ship motions of new off-shore trawler in the fishing operations" by Makiko SHIBATA, Kiyoshi AMAGAI and Nobuo KIMURA (Hokkaido Univ., Japan) offered paper.

(9 papers; finalised)

Structural Strength Session

Coordinators: J. Amdahl(Univ. of Trondheim, Norway), T. Yao(Osaka Univ. ,Japan)

- “The Experimental Study on the Bow Flare Slamming of a Large Container Ship in Multi-Directional Irregular Waves” by Ryoju Matsunami (Class NK), Y. Ogawa (NMRI), S. Mizokami (Mitsubishi Heavy Industries) and A. Kumano (Class NK) offered paper.
- “ Influence of Residual Stress on Buckling /Ultimate Strength of Stiffened Plating ” by Sunil K. Mukherjee, K. Hashimoto and T. Yao (Osaka)
- “A FIRST PRINCIPLES APPROACH TO STRUCTURAL DESIGN LOADS INCLUDING WHIPPING HYDROELASTIC EFFECTS” by Giorgio Bacicchi, Gianfranco Bertaglia, Giovanni Scarpa (Fincantieri CNI, Italy), Mario Dogliani (Rina, Italy) and Luca Sebastiani (Cetena, Italy).

(3 papers)

Fire/Explosion Safety Session

Coordinators: E. Galea(Univ. of Greenwich, UK), K. Yoshida(NMRI, Japan)

- “Integrated fire and evacuation in maritime environments”, by E.R.Galea, P.Lawrence, S.Gwynne, G.Sharp, N Hurst, Z.Wang and J.Ewer (University of Greenwich., UK)
- “Software Platform for Fire Safety Assessment” by Luis GUARIN (Safety at Sea Ltd., UK), Vladimir SHIGUNOV and Jayanta MAJUMDER (NA-ME, UK)
- “SAFETY AS A DESIGN OBJECTIVE FOR NEW PASSENGER SHIPS” by Alessandro Maccari, Giovanni Scarpa (Fincantieri CNI, Italy) and Mario Dogliani (Rina, Italy)
- “Design for ease of evacuation - Containing the risk of flooding and fire” by Guro Vassalos, Dracos Vassalos and Luis Guarin (NA-ME, UK)
- “Possibility of fire risk analysis of large passenger ships by application of a zone model program” by Hiroyuki YAMATO (Univ. of Tokyo, Japan), Fujio Kaneko, Koichi Yoshida(NMRI), Motonobu Imasato(NMRI) and Hideyuki Oka (NMRI, Japan)
- “Application of and Consideration on the IMO Guidelines for Evacuation Analysis for Passenger Ships” by Mitujirou KATUHARA, Keiko MIYAZAKI, Susumu OTA, Koichi YOSHIDA (NMRI, Japan)
- “Simulation of Ship Evacuation and Passenger Circulation” by Fernando Caldeira-Saraiva et al (BMT, UK)
- “Sandwich Plate System(SPS)- meeting SOLAS regulations on fire safety” by Chengi Kuo and Neil Little (NA-ME, UK)

(7 +1 papers)

Operational Safety Session

Coordinators: R. Tagg(Herbert Eng, USA), H. Imazu(Tokyo Univ. of Marine Sci. and Tech.)

- Keynote speaker: Akira Hirokawa (Marine Technical College, Japan), “Maritime Safety Culture”.
- “The motion of grounded ships in waves” by Ju Fan and Xianglu Huang (Shanghai Jiaotong University, China) offered paper.
- “The Controls of a Planing Boat’s Bow Up Keeping Each Minimum Total Resistance” by Yasushi Yoshida (Technical University of Varna, Bulgaria) offered paper.
- “A Risk-Based Approach for Controlling the Departure of Passenger Ships in Rough Weather in Greece” by K.J. Spyrou, T. Loukakis and G. Grigoropoulos (NTUA, Greece) offered paper.
- “Ship Safety Navigation in Conditions of the Arctic Shelf” by V.L. Alexandrov, A. P. Matlakh, Y. I. Nechaev, V. I. Polyakov (Admiralty Shipyards, Russia) offered paper.
- “Running Control and Forecast of an Emergency Ship Dynamics on Waves” by A.I. Baranov and Y. I. Nechaev (Rubin, Russia) offered paper.
- “Navigation Guidance to Avoid Dangerous Roll” by R. Tagg and L. Letizia ((Herbert Eng, USA)
- “Simulation-based Master Plan and its Safety Assessment for Congested Waterways Management” by Kazuhiko Hasegawa et al. (Osaka Univ., Japan)

(7 +1 papers)

Note: All invited and offered papers listed above were officially accepted for presentation. Papers indicated with blue characters are accepted by a session organiser or a member of international standing committee, and are expected to be approved by the international standing committee. Papers indicated with red characters are received by the local organiser directly and are expected to be approved by the relevant session organisers and the international standing committee.