

# **2nd International Symposium on Ship Operations, Management and Economics 2008**

**Athens, Greece  
17-18 September 2008**

**ISBN: 978-1-61738-645-9**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2008) by the Society of Naval Architects and Marine Engineers  
All rights reserved.

Printed by Curran Associates, Inc. (2010)

For permission requests, please contact the Society of Naval Architects and Marine Engineers  
at the address below.

Society of Naval Architects and Marine Engineers  
601 Pavonia Avenue  
Jersey City, New Jersey 07306

Phone: (201) 798-4800

Fax: (201) 798-4975

[www.sname.org](http://www.sname.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

## **SESSION A: SHIP MAINTENANCE & REPAIRS**

*Chair: Stavros Hatzigrigoris*

|   |    |
|---|----|
| <b>Seuratograms of Cargo Tank Pitting</b> .....   | 1  |
| <i>J. Devanney, M. Kennedy, P. Tsevas</i>   |    |
| <b>Operational and Environmental Impact of Foul Release Coatings</b> .....                                    | 17 |
| <i>J. Willsher</i>  |    |
| <b>Speed-Power Performance of Ships During Trials and in Service</b> .....                                    | 22 |
| <i>H. van den Boom, I. van der Hout, M. Flikkema</i>  |    |
| <b>Stress and Fatigue Analysis of a Floating Desalination Platform</b> .....                                  | 29 |
| <i>A. Glykas, T. Lilas, N. Nikitakos, I. Tsarouzas</i>  |    |
| <b>Testing of Acoustic Emission Technology to Detect Cracks and Corrosion in the Marine Environment</b> ..... | 38 |
| <i>G. Wang, M. Lee, C. Serratella, S. Botten, S. Ternowchek, D. Ozevin, J. Thibault, R. Scott</i>             |    |
| <b>Key Performance Indicators in Shipping Operations – A Drive for Continual Improvement</b> .....            | 44 |
| <i>S. Hatzigrigoris, D. Moustaka, F. Dalmyras</i>   |    |

## **SESSION B: THE SHIPPING ENVIRONMENT & MARKET MODELING**

*Chair: Dimitrios V. Lyridis*

|  |    |
|--|----|
| <b>New Operating Concepts-Management of Change (MOC) in the Shipping Industry. Are You Change Ready?</b> ..... | 54 |
| <i>S. Hatzigrigoris, Despina Moustaka</i>  |    |
| <b>Policy Failure in Shipping: A Global Disaster of Epic Dimensions</b> .....                                  | 62 |
| <i>M. Roe</i>  |    |
| <b>Early Commitment and Entry Deterrence in an LNG Shipping Market</b> .....                                   | 74 |
| <i>K. Gkonis, H. Psaraftis</i>   |    |
| <b>Exploring Tanker Market Elasticity with Respect to Oil Production Using FORESIM</b> .....                   | 85 |
| <i>P.G. Zacharioudakis, D.V. Lyridis</i>   |    |

## **SESSION C: MANNING, HUMAN FACTOR, SAFETY**

*Chair: Nikolaos P. Ventikos*

|  |     |
|--|-----|
| <b>Managing the Human Element – Best Practice for Ship Operators</b> .....                                   | 95  |
| <i>A. Sillitoe</i>   |     |
| <b>Impact of Ship Age on Tanker Accidents</b> .....  | 103 |
| <i>A. Papanikolaou, E. Eliopoulou</i>  |     |
| <b>Applying a Method to Identify Maritime Dangerous Goods Transport Flows in the Mediterranean Sea</b> ..... | 111 |
| <i>M. Escamilla, J. Gimenez</i>  |     |
| <b>The Need for Additional Human Factors Considerations in Ship Operations</b> .....                         | 124 |
| <i>H. van Hemmen</i>   |     |
| <b>Modelling of Dynamic Risk for Enhanced Ship Monitoring and Risk Reduction</b> .....                       | 143 |
| <i>M. Eide, O. Endresen, K. Roang, J. Ervik</i>  |     |

## **SESSION D: MOTORWAYS OF THE SEA**

*Chair: Harilaos N. Psaraftis*

|  |     |
|--|-----|
| <b>Estimation of a Modal Choice Model in the Western Europe Motorway of the Sea Corridor: A Stated Preference Analysis</b> ..... | 152 |
| <i>M. Feo-Valero, L. Saez-Carramolino, L. Garcia-Menendez</i>  |     |
| <b>About the Activities Optimisation in Container Terminal</b> .....   | 163 |
| <i>V. Popescu, H. Menadil, K. Izet-Unsalan</i>   |     |
| <b>The Influence of New IT-Tools on the Harbour-Hinterland Connectivity of Intermodal Transport Chains</b> .....                 | 169 |
| <i>G. Kammerer, B. Meimbresse, H. Sonntag, G. Schilk</i>   |     |

## **SESSION E: VESSEL OPERATIONS**

*Chair: Petros Lalangas*

|  |     |
|--|-----|
| <b>Cylinder Oil Feedrate Optimisation Programme - Astro Cygnus, Astro Perseus, Astro Polaris</b> ..... | 176 |
| <i>S. Ghosh, S. Hatzigrigoris, C. Morfinos, F. Dalmyras</i>  |     |
| <b>Improving Energy Efficiency-Shipboard Energy Audit</b> .....  | 187 |
| <i>A. Iordanidis, N. Batistatos, S. Dimakopoulos, C. Morfinos, S. Hatzigrigoris</i>                    |     |
| <b>An Appraisal of Motivation Principles in Shipping Companies</b> .....                               | 202 |
| <i>K. Mitroussi, C. Chang</i>  |     |
| <b>Builders and Operators and Their Management of Tanker and Dry Bulker Design</b> .....               | 214 |
| <i>D. Capaitzis</i>  |     |
| <b>On the Ship's Trimming Using Moments of the Gravity and Buoyancy Forces of High Order</b> .....     | 233 |
| <i>L. Ivanov, J. Kokarakis</i>   |     |

## **SESSION F: ENVIRONMENTAL MANAGEMENT**

*Chair: Panayotis Zacharioudakis*

|  |     |
|--|-----|
| <b>Adequacy of Waste Reception Facilities in Greek Ports: Myth or Reality?</b> .....           | 243 |
| <i>K. Giziakis, A. Mahairas</i>  |     |
| <b>A Model-Based Approach for Tactical Decision Making in Oil Spill Response</b> .....         | 251 |
| <i>K. Gkonis, N. Ventikos, H. Psaraftis, N. Kakalis, Y. Ventikos</i>                           |     |
| <b>Achieving Emission Reductions: Analysing Cost and Consequences Towards 2020</b> .....       | 265 |
| <i>T. Longva, M. Eide, E. Nyhus</i>  |     |
| <b>Marine Environment Risk Assessment: A survey on the Disutility Cost of Oil Spills</b> ..... | 275 |
| <i>C. Kontovas, H. Psaraftis</i>   |     |
| <b>The High Comfort Class Passenger Ferry Design for Optimum Wake</b> .....                    | 288 |
| <i>R. Hamalainen, J. van Heerd</i>   |     |
| <b>Author Index</b>  |     |