

6th International Conference on High Performance Marine Vessels 2006

(HPMV China 2006)

In Association with 2006 China International Boat Show

**Shanghai, China
7-8 April 2006**

ISBN: 978-1-61567-851-8

Printed from e-media with permission by:

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

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

Copyright© (2006) by The Royal Institution of Naval Architects
All rights reserved.

Printed by Curran Associates, Inc. (2010)

For permission requests, please contact The Royal Institution of Naval Architects
at the address below.

The Royal Institution of Naval Architects
10 Upper Belgrave Street
London SW1X 8BQ UK

Phone: 44 207 235 4622
Fax: 44 207 259 5912

publications@rina.org.uk

TABLE OF CONTENTS

A Gas Turbine Modular Model for Ship Propulsion Studies	1
<i>G. Benvenuto, U. Campora</i>	
Performance Prediction of a Planing Craft by Dynamic Numerical Simulation	21
<i>M. Altosole, G. Benvenuto, M. Figari</i>	
Damage Identification and Health Monitoring of Composite Structures Using Vibrations Measurements and Piezoelectric Devices	35
<i>I. Bovio, L. Lecce</i>	
CFD Simulations of the Flow Through A Waterjet Installation	46
<i>N.W.H. Bulten, R. Verbeek</i>	
Structural Response of a Fast Patrol Vessel When Operating in Several Sea Areas: Comparison by Means of a Fatigue Assessment	63
<i>C. Cartalemi, S. Ferraris, A. Moggia Cappelletti, L. Sebastiani, D. Boote</i>	
Study of Two-Phase Bubbly Water Ramjet Performance	79
<i>Alon Gany, Marat Mor</i>	
Intruder: A Device to Improve Hull Performances	92
<i>A Mancini, A Moriconi</i>	
Experimental Study of the Influence of Turbulence on the Performance of a Blade of Hydrofoil	104
<i>L. Hammadi, M. Belhadri, O. Mine, H. Adjlout</i>	
Design Optimization in High-Performance Boats	118
<i>Antonio Del Prete, Molly Hong</i>	
The Structural Design Approach for CCS “Guidelines of Small Waterplane Area Twin Hull Craft”	130
<i>Hong Ying</i>	
Study on Synthesis Optimization of Speed and Seakeeping Performance Based on On-Line Simulation of High-Speed Single-Hull Ship	136
<i>Wang Yi, Yang Song-Lin</i>	
Discussion on High Speed Boat Run Up on Rocks and Its Impact Force	145
<i>Chen Guoyu</i>	
Study of Longitudinal Motion Control System on SWATH	153
<i>Chen Zhengchao, Li Tieli</i>	
The New Progress of Fuel Cell	162
<i>Zhang Wen Yu</i>	
Investigation on Microstructure and Property of Explosive Welding and Rolling B30/CCSB Composite Plate	168
<i>Hou Fa-Chen, Zhang Bao-Qi</i>	
Hull Form and Resistance Performance of WPC Research	176
<i>Zhang Xiaoyang, Li tieli</i>	
The Feature of the Hull Form and Performance of 2500t Grade SWATH Oceanography Survey Vessel	182
<i>Ge Wei-Zhen, Sui Ai-Guo, Yang Dong, Song Guo-Hua</i>	
Research on Resistance Performance of HYSWATH	190
<i>Liu Ya-Dong, Feng Yong-Jun</i>	
Solar Cell and Its Application in Ship Industry	197
<i>Guang-Pu WEI</i>	
Study on Optimization of Automatic Control Parameters for Ekranoplan (WIG Ship)	203
<i>Qian Zhou, Xing-Fa Xu, Chang-Hua Yuan</i>	
The Doppler Effect of Load Applied to SWATH and the Analysis Method of Hull Strength	209
<i>Jianhong Yuan, Zhijian Chen, Hu Yong</i>	
Calculations of Resistance, Sea-Keeping Characteristics and Optimization of High Speed Trimaran	215
<i>Huang De-Bo, Duan Wen Yang, Zhou Guang Li, Li Yun Bo, Han Kai Jia, Li Jiang Hua</i>	
An Investigation on Small Water-Line Area Single Hull Wave Making Resistance and Ship Form Optimization	222
<i>Zheng Yi, Lu Xiaoping, Dong Zushun</i>	
Long Term Prediction of Wave Load and Structural Strength Analysis of SWATH on Entire Ship FE Model	232
<i>Liu Jian-Hua, Ren Hong, Wang Hui-Cai, Huang Shou-Cheng</i>	
The Online Overall Optimization of Rapidity and Manoeuvrability of High-Speed Monohull Ship Based on Chaos Algorithm (Abstract)	243
<i>Liang Dong, Song-Lin Yang</i>	

The Determination of Wave Induced Loads for 2500t Grade SWATH Vessel	244
<i>Lin Ji-Ru, You Guo-Hong, Tang Tian-Cheng, Shi Li-Guo</i>	
Material Selection and Structure Design in High-Speed Aluminum Alloy Ships	254
<i>Wang Chen Quan, Liao Yinbo</i>	
Structure Fireproofing Design of Medical Cabin in Medical Ship	261
<i>Yang ZhiQing, Ye Ming, Zhong ChenHua, Ying MuDe</i>	
Multi Relationship Research of Warship Cabin Fireproofing Characteristics	266
<i>Zhong Chen Hua, Wang Dong Tao, Yang Zhi Qing, Ying Mu De</i>	
A Summary on Hydrodynamic Research of High Speed Trimaran	275
<i>Xiong Xiaoqing, Fan Sheming, Sun Qun</i>	
Numerical Simulation of the Hydrofoil's Hydrodynamic Characteristics Based on Fluent	281
<i>Yang Pei-Qing, Guang Yi-Feng, Song Peng-Ke</i>	
Study on the Stability of WIG in the Take Off and Landing Process	287
<i>Ya-Jun Shi, Chang-Hua Yuan, Xing-Fa Xu</i>	
Regulatory Frame Work for High-Speed Craft	288
<i>Du Aiping, A.K. Seah</i>	
Author Index	