University of Naples "Federico II"
Department of Naval Architecture and Marine Engineering

University of Naples “Pathenope”
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Prof. R. Balestrieri, University of Naples "Parthenope"
Dr. C. Bertorello University of Naples, "Federico II"
Prof. G. Russo Krauss, University of Naples, "Federico II”
Prof. A. Scamardella, University of Naples “Parthenope”

Conference Secretariat :
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SNAME – The Society of Naval Architects & Marine Engineers
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University of Naples “Federico II”
University of Naples “ Parthenope”
## CONFERENCE GENERAL PROGRAM

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<th>MONDAY October 6th</th>
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THE SEVENTH INTERNATIONAL CONFERENCE ON FAST SEA TRANSPORTATION

INFORMATION

The seventh International Conference on Fast Sea Transportation will be held from Tuesday, October 7th, 2003 to Friday, October 10th, 2003 at the Hotel Continental Terme of the Ischia island (town of Ischia Porto).

It is organized jointly by the Department of Naval Architecture and Marine Engineering of the University of Naples “FEDERICO II” and by Institute of Navigation “G. Simeon” of the University of Naples “Parthenope.”

The Conference language is English. All presentations will be in English and no translation service will be available.

Five keynote lectures, five invited lectures and one hundred eleven other papers encompassing the following problem areas in high speed craft will be presented at the Conference:

- Hydrodynamics
- Structures and Materials
- Minimum Environmental Effects
- Infrastructures and Ship Economy
- Manoeuvrability
- Safety and Training
- Motion and Risk Control
- CFD
- Wave Loads
- HSC Trends and Design
- Seakeeping
- Propulsion

Five keynote lectures will be presented by:

Paul D. Sclavounos, MIT (USA)
Odd M. Faltinsen, NUST, Trondheim (NORWAY)
Nigel Gee, Nigel Gee and Associates Ltd (U.K.)
Torgeir Moan, NUST, Trondheim (NORWAY)
Dracos Vassalos, University of Glasgow and Strathclyde (U.K.)

Facilities for presentation
Technical equipment is available, such as overhead projector, beamer projector for personal computer presentation (PowerPoint).
If special equipment is required, please inform the FAST Secretariat

TECHNICAL PROGRAMME

TUESDAY, October 7th

9.00-9.50

Opening Sessions
Welcome: P. Cassella, Chairman of FAST2003 Organizing Committee
(DIN University of Naples “Federico II” Italy)

Opening Lectures
1) The Fast Ship Fever…..From Trondheim To Ischia,The Gulf Of Naples
   Kjell O. Holden, Chairman of the FAST2003 International Committee (MARINTEK –Norway)
2) High Speed Craft – Regulations and Efforts to Minimize Accidents
   Eugenio Sicurezza, Head of Italian Coast Guards

9.50-10.40

Keynote Lecture 1
Simulation Based Resistance And Seakeeping Performance Of High-Speed Monohull And Multihull Vessels Equipped With Motion Control Lifting Appendages
   Paul D. Sclavounos(speaker), Shiran Purvin, Talha Ulusoy, Sungeun Kim (MIT,Cambridge USA)

10.40-11.10

Coffee Break

11.10-12.30

Technical Sessions
Session 1A Hydrodynamics
   Chair Prof. A. Incecik, (University Newcastle upon Tyne, U.K.)

11.10-11.30
   Hydrodynamic Developments Of 154m Class Ro-Ro Passenger Ferry,
   Soon Ho Choi, Jung Joong Kim, Gun Ho Lee, Se Eun Kim, Sung Mok Ahn
   (Samsung Heavy Industries Co. Ltd., Korea)

11.30-11.50
   A Comparative Analysis Of The Resistance Qualities Of A Series Of Semi- Displacement
   High-Speed Mono-Hull Forms
   Jacques. B. Hadler And Richard Vanhooff (Webb Institute Glen Cove New York –USA)

11.50-12.10
   A Nonlinear Time Domain Simulation For Predicting Wet-Deck Slamming Of Catamaran
   Rong Zhao (MARINTEK Trondheim, Norway)

12.10-12.30
   Series 64 Parent Hull Displacement And Static Trim Variation
   Gabor Karafiath, Todd Carrico (Navy, Naval Surface Warfare Center, Carderock Division USA)

Session 1B Structures and Materials
   Chair Dr. B. Hayman, (DNV, Norway)

11.10-11.50
   A New Generation Of Large Fast Ferry – From Concept To Contract Reality
Session 1C  Minimum Environmental Effects
Chair Prof. T. Molland  (University of Southampton U.K.)

11.10-11.50  Near And Distant Waves Of Fast Ships In Unlimited And Limited Depths  
Dario Bruzzone (invited speaker), Stefano Brizzolara (DINAV University of Genoa Italy)

11.50-12.10  The Wash Waves Generated By High-Speed Ships Prediction And Directive Influence  
Anatoly Lyakhovitsky1, Li Yun-bo2, Huang De-bo2  
(1) St. Petersburg State Marine Technical University, Russia  
(2) Harbin Engineering University, China

12.10-12.30  Noise Reduction For Improved Comfort Onboard High-Speed Craft  
Kai A. Abrahamsen (DNV, Norway)

Session 2A  Hydrodynamics
Chair Prof. A. Cardo (University of Trieste, Italy)

14.00-14.20  Hullform Analysis And Optimisation For A Fast Ropax Ferry  
Jochen Marzi, Scott Gatchell (Hamburger Schiffbau Versuchsanstalt, Germany)

Luigi Iannone (INSEAN, Italian Model Basin, Rome, Italy)

14.40-15.00  The Effect Of Demihull Separation On The Frictional Resistance Of Catamarans  
Tony Armstrong (Austal Ships, Australia)

15.00-15.20  Performance And Cavitation Analysis Of A Waterjet System On A Cavitation Tunnel  
Klaas Kouker1, Tom Van Terwisga1, Rob Verbeek2, Peter Van Terwisga3  
(1) MARIN, The Netherlands  
(2) Wärtsilä Propulsion Netherlands, The Netherlands  
(3) Royal Netherlands Navy, The Netherlands

Session 2B  Structures and Materials
Chair Prof. A. Campanile (DIN University of Naples “Federico II” Italy)

14.00-14.40  Evolution of High Speed Ferries and Fincantieri Experience: from the built dreams to the dreams to be built  
Giorgio Arena (invited speaker – FINCANTIERI SpA Italy)

14.40-15.00  An Investigation Of The Options For Evaluating The Compressive Strength And Reliability Of Aluminium Stiffened Panels  
Matthew Collette, Atilla Incecik (University of Newcastle upon Tyne U.K.)

15.00-15.20  On The Preliminary Analysis For Trimaran Structural Design
Session 2C   Infrastructures and Ship Economy
Chair Prof. S. Harries (University of Berlin, Germany)

14.00-14.20 Choosing Affordable Requirements And Technology Options For Future Surface Ships
David R. Lavis, Brian G. Forstell (Band, Lavis & A. USA)

14.20-14.40 Technical And Economic Investigations Of Fast Ferry Operations
T. Karayannis¹, A.F. Molland²
(1) University of Athens, Greece
(2) University of Southampton, U.K.

14.40-15.00 Spin-Hsv: Towards An Improved High Speed Maritime Transport
Sverre Alvik¹, Richard Clements², Marilyne Guével³, Arnulf Hader⁴, Stig Vaular⁵
(1) Det Norske Veritas, Norway
(2) Marinetechnik South Ltd, United Kingdom
(3) Mettle Groupe, France
(4) Institut für Seeverkehrswirtschaft und Logistik, Germany
(5) Hardanger Sunnhordlandske Dampskipsselskap ASA, Norway

15.00-15.20 Fast Shuttle Services For Cruise Vessels
Jari Sirvio, Olli Salmela, Egil Jullumstrøm
(1) Kvaerner Masa-Yards Technology, Turku, Finland
(2) Norwegian Marine Technology Research Institute (Marintek), Norway

15.20-15.40 Coffee Break

15.40-15.50 Technical Sessions

Session 3A   Hydrodynamics
Chair Prof. I. Grubisic, (University of Zagreb, Croatia)

15.50-16.10 The Accuracy Of Wave Pattern Resistance Determination From Wave Measurements In Longitudinal Cuts
Nastia Degiuli, Andreja Werner, Zdravko Doliner (University of Zagreb, Croatia)

16.10-16.30 Influence Of Hull Shape On The Resistance Of A Fast Trimaran Vessel
Antonio Cardo¹, Marco Ferrando², Carlo Podenzana-Bonvino²
(1) Università di Trieste, Italy
(2) University of Genoa, Italy

16.30-16.50 Hydrodynamic Performance And Exciting Force Of Surface Piercing Propeller
Kazuo Nozawa (Osaka University, Japan)

16.50-17.10 Drag Reduction On A High Speed Trimaran
Robert Latorre, Aaron Miller, Richard Philips (University of New Orleans, USA)

17.10-17.30 Comparison Between The Predicted And Measured Response Of A Planing Vessel
G.R. Finch (Industrial Research Limited, New Zealand)

Session 3B   Manouvrability
Chair Ing. Mario Dogliani, (RINA S.p.A., Genoa, Italy)

15.50-16.10 A Crash-Stop Study For An Azipod-Propelled Vessel
Vladimir Boushkovsky¹, Alexander Poustoshny¹, Andrey Vasiliev¹, Tomi Veikonheimo²
(1) Krylov Shipbuilding Research Institute, Russia
(2) Tomi Veikonheimo, ABB, Finland

16.10-16.30 A New Integrated Methodology In Course Keeping And Manoeuvring
Roberto Balestri, Antonio Scamardella, Mario Voltaggio
(University of Naples “Parthenope” Italy)

16.30-17.00 One Or Two Rudders? A Dilemma In Fast Twin Screw Vessel Design
Gennaro Avellino, Alessia Coan (FINCANTIERI, Cantieri Navali Italiani S.p.A., Trieste Italy)

16.50-17.10
Analisys Of The Operations Of A Catamaran In Service In The Neapolitan Gulf; Comparison Between Full Scale Trials And Towing Tank Tests
Flavio Balsamo, Salvatore Miranda, Claudio Pensa, Franco Quaranta (DIN University of Naples “Federico II”, Italy)

17.10-17.30
Hydrodynamic Aspects Of Interest For The Development Of An Integrated Ride Control System For High Speed Mono Hulls
Albert Jurgens, Frans van Walree (MARIN, The Netherlands)

Session 3C Safety and Training
Chair Prof. D. Lavis, (Band, Lavis & A.U.S.A)

15.50-16.10
Application Of Risk Based Methodology To The Preliminary Design Phase Of High Speed Craft
Severine Delautre¹, Richard Birmingham², Jean-Claude Astrugue¹, Jonathan McGregor²
(1) Bureau Veritas, France
(2) University of Newcastle upon Tyne, UK

16.10-16.30
Optimising Boarding and De-Boarding Processes with AENEAS
Ulf Petersen¹, Tim Meyer-König², Daniel Povel¹
(1) Germanischer Lloyd AG, Germany
(2) TraffCo, Germany

16.30-16.50
Dynamic Stall and Cavitation on Stabilizers Fins and their Influence on the Ship Behaviour
Guilhem Gaillarde (MARIN The Netherlands)

16.50-17.10
On The Application Of Risk Analysis For Short Sea Shipping At Very High Speed
Massimo Figari, Paola Gualeni, Enrico Rizzato (University of Genoa, Italy)

17.10-17.30
Development Of A Crew Seat System For High Speed Rescue Craft
Bob Cripps¹, Simon Rees², Holly Phillips², Colin Cain², David Richards², Jac Cross²
(1) Royal National Lifeboat Institution U.K.
(2) Frazer-Nash Consultancy Limited (FNC) U.K.

WEDNESDAY, October 8th

9.00-9.50
Keynote Lecture 2
Hydrodynamic Aspects Of High-Speed Vessels
Faltinsen O.M.¹ (speaker) – Claudio Lugni² – Maurizio Landrini²
(1) NTNU University of Trondheim, (Norway)
(2) INSEAN Italian Ship Model Basin, Rome, (Italy)

9.50-10.40
Keynote Lecture 3
Fast Ships and Boats – New Concepts and Designs
Nigel Gee (Nigel Gee & Associates Ltd U.K.)

10.40–11.10
Coffee Break
11.10-12.30

Technical Sessions

Session 4A  Hydrodynamics
Chair Prof. R. Latorre (University of New Orleans, USA)

11.10-11.50
The Optimisation Of Trimaran Sidehull Position For Minimum Resistance
Lawrence J. Doctors (invited speaker), Robert J. Scrace (The University of New South Wales, Australia)

11.50-12-10
Transom Hollow Prediction For High-Speed Displacement Vessels
Simon W. Robards, Lawrence J. Doctors (The University of New South Wales, Australia)

12.10-12.30
Fully Nonlinear Wave-Wave Interactions Between A High-Speed Vessel And Incident Waves
Ray-Qing Lin, Arthur M. Reed, William Belknap (David Taylor Model Basin NSWC/CD, U.S.A.)

Session 4B  Structures and Materials
Chair Prof. M. Mandarino (DIN University of Naples “Federico II” Italy)

11.10–11.30
Non-Linear Response Of Laterally Loaded Frp Sandwich Panels For High Speed Craft
Brian Hayman1, Harald Osnes2, Dag McGeorge1
(1) Det Norske Veritas, Norway
(2) University of Oslo and Det Norske Veritas, Norway

11.30–11.50
Service Lifetime Assurance For Ship Structures Of Aluminum Alloys
Oleg M. Paliy, Evgeny Ya. Voronenok, Semion D. Knoring (Krylov Shipbuilding Research Institute, Russia)

11.50–12.10
Structural Analysis Of A Trimaran Fast Ferry
Dario Boote, Tommaso Colaianni, Cesare Rizzo (DINAV University of Genoa, Italy)

12.10–12.30
Vibrational Behaviour Of A Deck Panel Of A Fast Ferry
Alberto Ferrari, Enrico Rizzuto (DINAV University of Genoa, Italy)

Session 4C  Motion and Risk Control
Chair Mr. B. Allenström, (SSPA, Goteborg, Sweden)

11.10–11.30
Effect Of Sea, Ride Controls, Hull Form And Spacing On Motion And Sickness Incidence For High Speed Catamarans
Michael Davis, Damien Holloway (University of Tasmania, Australia)

11.30–11.50
Evaluation Method Of Ride Control System For Fast Craft From The Viewpoint Of Passenger Comfort
Ritsuo Shigehiro1, Takako Kuroda2, Harald E. Kagaruki1
(1) University of Kagoshima, Japan
(2) Hokkaido University, Japan

11.50–12.10
Automatic Hull Form Optimisation Towards Lower Resistance And Wash Using Artificial Intelligence
Kourosh Koushan (MARINTEK, Norway)

12.10–12.30
On The Development Of Structural Rules For The Classification Of Naval Vessels
Claudio Boccalatte1, Dino Cervetto2, Roberto Dattola1, Stefano Ferraris3, Rasmus Folsø2, Sergio Simone1
(1) Italian navy general staff, Rome, Italy
(2) RINA SpA, Italy
(3) Fincantieri, Genova, Italy
THURSDAY, October 9th

9.00–9.50

Keynote Lecture 4
Towards Structural Design Of High Speed Craft Based On Direct Calculations
Torgeir Moan, NTNU, University of Trondheim (NORWAY)

9.50–10.40

Keynote Lecture 5
Developments On A Probabilistic Risk/Cost Model For Large-Scale Flooding Consequence Analysis Of High Speed Monohulls
Dracos Vassalos (Speaker) Dimitris Konovessis, Daria Cabaj, (University of Glasgow and Strathclyde U.K.)

10.40–11.10

Coffee Break

11.10–12.30

Technical Sessions

Session 5A  CFD
Chair Prof. Ray–Quin Lin, (U.S. Navy, Naval Surface Warfare Center, Carderock Division USA)

11.10.11.30

A Numerical Method For Performance Prediction Of Hydrofoil-Assisted Catamarans
Michael Andrewartha¹, Lawrence Doctors¹, Kishore Kantimahanthi², Paul Brandner²
(1) The University of New South Wales, Sydney Australia
(2) Australian Maritime College, Australia

11.30–11.50

Numerical Prediction Of Steady Flow Around High Speed Vessels With Transom Stern
S.X. Du¹, D.A. Hudson¹, W.G. Price¹, P. Temarel¹, Y.S. Wu²
(1) University of Southampton, U.K
(2) China Ship Scientific Research Center, P.R.China

11.50–12.10

A Study On Wave Resistance Of High-Speed Displacement Hull Forms In Restricted Depth
Prasanta K. Sahoo¹, Lawrence J. Doctors²
(1) Australian Maritime College, Australia
(2) The University of New South Wales, Sydney Australia

12.10–12.30

A Numerical Model For Hydrodynamics Of Planing Surfaces
Davide Battistin, Alessandro Iafrati(INSEAN Rome, Italy)

Session 5B  Wave Loads
Chair Prof. D. Bruzzone, (DINAV University of Genoa Italy)

11.10–11.30

Prediction Of Global Wave Induced Loads For Structural Analysis Of IZAR High-Speed Pentamaran
Axel Köhlmooos¹, Francisco Viejo de Francisco², Antonio Pérez de Lucas²
(1) Germanischer Lloyd, GERMANY
(2) IZAR Technical Direction, Spain.

11.30–11.50

Determination Of Design Slamming Loads On Bow Doors For Ro-Ro Ships
Hui Wang, Xuekang Gu, Jinwei Shen(China Ship Scientific Center, P.R.China)
Design Load Of Bow Flare Impact Pressures On Container Ship
Ryoju Matsunami¹, Yoshitaka Ogawa², Makoto Arai³, Atsushi Kumano¹
(1) Nippon Kaiji Kyokai, Japan
(2) National Maritime Research Institute, Japan
(3) Yokohama National University, Japan

Estimation Method For Probability Density Function Of The Water Impact Pressure Of Post-Panamax Container Ship Due To Bow Flare Slamming
Yoshitaka Ogawa¹, Ryoju Matsunami², Makiko Minami¹, Katsuji Tanizawa¹, Makoto Arai³, Atsushi Kumano², Ryuji Miyake²
(1) National Maritime Research Institute, Japan
(2) Nippon Kaiji Kyokai (Class NK), Japan
(3) Yokohama National University, Japan

Session 5C  HSC Trends and Design
Chair Mr. T. Armstrong, (Austral Ships, Australia)

11.10–11.30  Stern Flap: An Economical Fuel-Saving, Go-Faster, Go-Farther Device For The Commercial Vessel Market
Dominic S. Cusanelli(NSWCCD, USA)

11.30–11.50  The Hovercraft Starts The New Millenium With Increased Utilisation
Brian J. Russell(Hovercraft Technical Service, U.K.)

11.50–12.10  Prospects Of Unconventional Hydrodynamic Configurations For Large High-Speed Marine Ships
Victor N.Anosov, Margarita V.Galoushina, Alexander V.Poustoshny, Sergey D.Prokhorov, Sergey O.Rozhdestvensky, Andrey V.Sverchkov
(Krylov Shipbuilding Research Institute, Russia)

12.10–12.30  Study On The Compound Effects Of Interceptor With Stern Flap For Two Fast Monohulls With Transom Stern
Jing-Fa Tsai¹, Jeng-Lih Hwang², Shean-Kwang Chou²
(1) National Taiwan University, Taiwan
(2) United Ship Design and Development Center, Taiwan, ROC

Session 6A  CFD
Chair Dr. U. Bulgarelli (INSEAN Italian Model Basin, Rome, Italy)

14.00–14.20  Ship Design Optimization With Variable Fidelity Models
Daniele Peri, Lanfranco Benedetti(INSEAN The Italian Ship Model Basin, Rome Italy)

14.20–14.40  Turbulent Steady Flow Around Kvlcc2 Hull Form Using Multiblock Domains
Francesco Capizzano, Agostino De Marco(University of Naples “Federico II”Italy)

14.40–15.00  Simulation Of Floating-Body Motions In Viscous Flow
Matthias Klemt¹, Milovan Peric², Gerhard Jensen¹
(1) Technical University of Hamburg, Germany
(2) CD Adapco Group – Nuremberg Germany
15.00–15.20  Model Trials For Studying Hydrodynamic Force Components In Following Seas

Olov Lundbäck¹, Jianbo Hua²

(¹) Chalmers Lindholmen, Sweden
(²) SSPA, Sweden

**Session 6B  Wave Loads**
Chair Prof. C. Podenzana Bonvino (DINAV University of Genoa, Italy)

14.00–14.20  Wetdeck Slamming Of High-Speed Catamarans With A Centre Bow

James Whelan¹, Damien Holloway¹, Tim Roberts², Michael Davis¹

(¹) University of Tasmania, Australia
(²) Revolution Design Pty Ltd, Australia

14.20–14.40  Rational Determination Of Nonlinear Design Loads For Advanced Vessels

Wouter Pastoor, Trym Tveittnes (DNV, Norway)

14.40–15.00  Asymmetric Water Entry Of A Wedge

Yuri A. Semenov¹, Alessandro Iafrati²

(¹) Institute of Technical Mechanics, Ukraine
(²) INSEAN Italian Ship Model Basin, Rome, Italy

15.00–15.20  Rigid Body Dynamic Hull Bending Moments, Shear Forces And Pcm In Fast Catamarans

Damien Holloway, Michael Davis, Giles Thomas (University of Tasmania, Australia)

**Session 6C  HSC Trends and Design**
Chair Mr. Brian J. Russell, (Hovercraft Technical Services Ltd., U.K.)

14.00–14.20  The Effects of Length On The Powering Of Large Slender Hull Forms

Nigel Gee, James Roy (Nigel Gee and Associates Ltd, U.K.)


Justus Heimann, Stefan Harries (Technical University of Berlin, Germany)

14.40–15.00  SELF-PROPULSION Model Tests Of A Wing-In-Surface-Effect-Ship With Canard Configuration

Hiromichi Akimoto¹, Takahiro Taketsume², Keiichiro Iida¹, Syozo Kubo¹

(¹) Tottori University, Japan
(²) Tsuneishi Shipbuilding Co. Ltd., Japan

15.00–15.20  Containership Evolution And Mega-Container Carriers Development

Branislav Dragović¹, Zoran Radmilović², Vladimir Maras¹

(¹) University of Montenegro, Maritime Faculty, Serbia & Montenegro
(²) University of Belgrade, Faculty of Traffic and Transport Engineering, Serbia & Montenegro

15.20–15.50  Coffee Break

15.50–17.10  Technical Sessions

**Session 7A  Seakeeping**
Chair Dr. L. Sebastiani (CETENA, Italian Ship Research Centre, Genoa, Italy)

15.50–16.10  Prediction Of Offshore And Inshore Wave Spectra: A Case Study

Guido Benassai (University of Naples “Parthenope”)

16.10–16.30  Prediction Of Nonlinear Motions And Wave Loads Of High-Speed Monohulls In Oblique Waves
Session 7B  Wave Loads
Chair Prof. I. Zotti (DINMA University of Trieste, Italy)

15.50–16.10
A Parametric Study For The Structural Behaviour Of A Lightweight Car-Carrier Deck
Junbo Jia, Anders Ulfvarson(Chalmers University of Technology, Sweden)

16.10–16.30
Experimental Analysis Of The Wave-Induced Response Of A Fast Monohull Via A Segmented-Hull Model
Daniele Dessi, Riccardo Mariani, Francesco La Gala, Lanfranco Benedetti(INSEAN Rome, Italy)

16.30–16.50
Local Dynamic Strains In Fast Ship Structures Under Slamming
Gennady Kryzhevich(Krylov Shipbuilding Research Institute, St. Petersburg, Russia)

16.50–17.10
Numerical Assessment Of Segmented Test Model Approach For Measurement Of Whipping Responses
Ole David Økland1, Rong Zhao1, Torgeir Moan2
(1) MARINTEK, Trondheim, Norway
(2) NTNU, University of Trondheim, Norway

Session 7C  HSC Tends and Design
Chair Prof. V. Pustoshny (Krylov Ship Research Institute, St. Petersburg Russia)

15.50–16.10
Concept Development And Model Testing - New Generation Air Assisted Vessels (AAV) With Water Jet Propulsion
Björn Allenström1, Hans Liljenberg1, Ulf Tudem2
(1) SSPA, Goteborg, Sweden
(2) SES Europe AS, Norway

16.10–16.30
Development Of The Four-Passenger Class Wig Ship
Myung-Soo Shin1, Il-Sung Moon1, Seung-Il Yang1, Jae-Kuk Lee2, Ju-Ho Park2, Jae-Wan Park2
(1) Korea Research Institute of Ship & Ocean Engineering, KORDI, Korea
(2) Infinity Technologies Co., Ltd, Korea

16.30–16.50
High Speed Monohull – Concept Optimisation And Verification
Björn Ola Berge1, Ingebjørn Aasheim2
(1) MARINTEK, Trondheim, Norway
(2) Brodrene Aa AS, Norway

16.50–17.10
Evaluation Of A Landing Flying Boat On The Sea - Development And Applications Of A High-Speed Experimental Guiding System
Tsugukiyo Hirayama, Koji Miyaji, Takehiko Takayama, Yoshiaki Hirakawa, Tomonari Hayashi(Yokohama National University, Japan)
FRYDAY, October 10th

9.00–10.40  Technical Sessions

**Session 8A  Seakeeping**
*Chair Prof. Forng-Chen Chiu (National Taiwan University, Taiwan)*

9.00–9.40  From Model Scale To Full Size. Investigation On Turbulence Stimulation In Resistance Model Tests Of High Speed Craft
_Carlo Bertorello¹ (invited speaker,) Dario Bruzzone², Sebastiano Caldarella¹, Pasquale Cassella¹, Igor Zotti³_

(1) DIN, University of Naples “Federico II” Italy  
(2) DINAV University of Genoa Italy  
(3) DINMA University of Trieste Italy

9.40–10.00  Sea-Keeping And Structural Behaviour Of A Fast Patrol Vessel In Closed And Open Sea
_R. Folsø¹, S. Ferraris², R. Grillo², F. Albertoni², L. Folsø³_

(1) RINA SpA Italy  
(2) FINCANTIERI SpA Italy  
(3) DINAV University of Genoa, Italy

10.00–10.20  Human Comfort And Motion Sickness On Board High Speed Crafts
_Osmans Turan, A. Ganguly, Seref Aksu and C. Verveniotis (University of Glasgow and Strathclyde, Glasgow U.K.)_

10.20–10.40  Optimisation Of The Catamaran Hull To Minimise Of Motions And Maximise Operability
_Edward Dudson, Han Jorgen Rambech (Nigel Gee and Associates Ltd, Southampton U.K.)_

**Session 8B  Propulsion and Hydrodynamics**
*Mr.. F. Hoppe (RENK AG, Germany)*

9.00–9.40  Hydrodynamic Improvements Of Catamaran Hulls When Using Streamlined Bodies Of Revolution
_Igor Zotti (invited speaker) DINMA University of Trieste Italy_

9.40–10.00  Applicability Of A Rim Drive Pod For High Speed Ship Propulsion
_John Richards¹, Jon Eaton², Juergen Friesch¹, Michelle Lea³, Donald Thompson³, Bill VanBlaricom³_

(1) (HSV), Hamburg, Germany  
(2) Pennsylvania State University, USA  
(3) General Dynamics Electric Boat, Groton, CT

10.00–10.20  Design Of A Waterjet Propulsion System For An Amphibious Tracked Vehicle
_M. C. Kim, H. H. Chun W., G. Park (Pusan National University, Korea)_

10.20–10.40  Enhanced Performance Scaling Methodology
_Jon E. Eaton, Eckhard Praefke, Friedrich Mewis (Pennsylvania State University, USA)_

**Session 8C  HSC Trend and Design**
*Prof. T. Katayama (Osaka Prefecture University, Japan)_

9.00–9.40  High Speed Craft In The Gulf Of Naples
_Antonio Scamardella¹ (invited speaker), Dario Coccoli²_
Multi-Attribute Concept Design Model Of Patrol, Rescue And Antiterrorist Craft

Izvor Grubisic1, Ermina Begovic2
(1) University of Zagreb, Croatia
(2) University of Naples “Federico II” Italy

10.00–10.20 The “Saettia” Class Patrol Ships: A Highly Flexible Fincantieri Design For Italian Coast Guard

Alfonso Barbato1, Andrea Castagno1, Mauro Elefante2, Vincenzo Farinetti1
(1) FINCANTIERI - Naval Vessel Business Unit Italy
(3) MARICOGECAP, Italy

Study On The Space Motion Of Wing-In-Ground Effect Craft

Chang-Hua Yuan, Yong-Lin Ye (China Ship Scientific Center Wuxi, R.P.China)

Coffee break

Session 9A Seakeeping
Chair Prof. M. Davis (University of Tasmania, Australia)

11.10–11.30 Seakeeping Assessment Of Trimaran Hulls
Ermina Begovic, Carlo Bertorello, Guido Boccadamo (DIN University of Naples “Federico II”, Italy)

11.30–11.50 Effects Of Seakeeping Quality On Travel Demand Of A Fast Ferry
Yoshiho Ikeda, Takako Kuroda and Yuji Takeuchi (Osaka Prefecture University, Japan)

11.50–12.10 Transient Dynamic Slam Response Of Large High Speed Catamarans
Giles Thomas, Michael Davis, Damien Holloway, Tim Roberts (University of Tasmania, Australia)

12.10–12.30 Numerical Estimation Of Ship Wash Waves In Deep And Shallow Water
A.F. Molland, P.A. Wilson, D.J. Taunton, S. Chandraprabha, P.A. Ghani (University of Southampton, U.K.)

Session 9B Propulsion and Hydrodynamics
Chair Prof. G. Benvenuto (DINAV University of Genoa, Italy)

11.10–11.30 Erosion Problems On Fast High Powered Ships
Jürgen Friesch (HSMB, Hamburg, Germany)

11.30-11.50 Design Of Optimal Inlet Duct Geometry Based On Vessel Operational Profile
N.W.H. Bulten, R. Verbeek (Wartsila Propulsion, The Netherlands)

11.50-12.10 Investigations About The Use Of Poded Drives For Fast Ships
Cornelia Heinke, Hans-Jürgen Heinke (Potsdam Model Basin, Germany)

12.10-12.30 Dynamic Performance Analysis of a Gas Turbine/Waterjet Propulsion System for a Fast Trimaran Ferry
Giovanni Benvenuto, Ugo Campora (DINAV University of Genoa, Italy)

Session 9C HSC Trends and Design
Chair Prof. G. Boccadamo (DIN University of Naples “Federico II” Italy)

11.10–11.30 Large Bow And Stern Bulls Installed On Center Plane Of Catamaran And Their Wave Making Characteristics
Kazuo Suzuki, Hisashi Kai, Hisamitsu Tsutsunami (National University of Yokohama, Japan)

11.30-11.50 Effect Of Hulls Form Variations On The Hydrodynamic Performances In Waves Of A Trimaran Ship
Stefano Brizzolara1, Marco Capasso1, Alberto Francescutto2
(1) DINAV University of Genoa, Italy
(2) DINMA University of Trieste, Italy
11.50-12.10 Determination Of Optimum Position Of Outriggers Of Trimaran Regarding Minimum Wave Pattern Resistance
*Nastia Degiuli, Andreja Werner, Zdravko Doliner* (University of Zagreb, Croatia)

12.10-12.30 Experimental And Numerical Investigation Of ‘Arrow’ Trimarans
*Sandy Day, David Clelland, Edd Nixon* (Universities of Glasgow and Strathclyde, Glasgow, U.K.)

12.30–14.00 LUNCH

14.00–15.20 Technical Sessions

**Session 10A** Motion Control
*chair* Prof. R. Balestrieri (University of Naples “Parthenope”, Italy)

14.00-14.20 A New Ship Motion Control System For High-Speed Craft
*Toru Katayama, Koji Suzuki, Yoshiho Ikeda* (Osaka Prefecture University, Japan)

14.20–14.40 Test Of A GPS RTK System For Ship Motion Measurements
*Giovanni Carrera* (DINAV University of Genoa, Italy)

14.40–15.00 Ride Control Systems – Reduced Motions On The Cost Of Increased Sectional Forces ?
*Rasmus Folsø*¹, *Ulrik Dam Nielsen*², *Francesco Torti*³
(1) RINA SpA Genoa, Italy
(2) DTU Lingby, Denmark
(3) Rodriguez Engineering Genoa, Italy

15.00–15.20 Steady And Unsteady Rance Simulations For Planing Crafts
*Rodrigo Azcueta* (MTG Marinetechnik GmbH, Germany)

**Session 10B** Hydrodynamics
*chair* Ing. L. Mor (CETENA, Italian Ship Research Centre, Genoa, Italy)

14.00-14.20 Minimising The Effects of Transom Geometry on Waterjet Propelled Craft Operating In The Displacement and Pre-Planing Regime
*James Roy, John Bonafoux* (Nigel Gee and Associates U.K.)

14.20–14.40 Latest Developments in Fast Ship Gear Technology
*Franz Hoppe* (Marine Gears RENK, Germany)

14.40–15.00 On The Hydrodynamic Performance Of High Speed Craft
*C. Bertorello*¹, *S. Brizzolara*², *D. Bruzzone*², *P. Cassella*¹, *I. Zotti*³
(1) DIN University of Naples “Federico II” Italy
(2) DINAV University of Genoa, Italy
(3) DINMA University of Trieste, Italy

15.00–15.20 Hydrodynamic Analysis Of Interceptors With Cfd Methods
*Stefano Brizzolara* (DINAV University of Genoa, Italy)

**Session 10C** HSC Trends and Design
*chair* Prof. K. Nozawa (Osaka University, Japan)

14.00-14.20 Aerodynamic Properties Of A High Speed Offshore Racing Catamaran
*Hans Jørgen B. Mørch* (Agder University College, Norway)

14.20–14.40 Design Project Of A Trimaran Multipurpose Frigate – Study Of The Hydrodynamic Aspects
*Luca Sebastiani*¹, *Roberta Depascale*¹, *Michele Viviani*², *Roberto Dattola*³
(1) CETENA S.p.A., Italy
(2) FINCANTIERI Naval Vessel Business Unit, Italy
(3) Italian Navy General Staff, Italy

*Mauro Catalani* (University of Naples “Parthenope”, Italy)

15.00–15.20 Structural Design Of The 100 Knot Yacht
General information

1. Venue of the Congress

The seventh International Conference on Fast Sea Transportation will be held from Tuesday, October 7th, 2003 to Friday, October 10th, 2003 at the Hotel Continental Terme of the Ischia island (town of Ischia Porto).

2. Ischia Island

Ischia is the largest island in the Gulf of Naples and enjoys a splendid geographical position. The island’s beautiful landscapes, beaches, luxuriant pine forests, vineyards and lemon and orange orchards have earned in the name “The Green Island”. Ischia has a population of 45,000 and is divided into 6 small towns, (Ischia Porto, Barano, Casamicciola, Forio, Lacco Ameno and Serrara Fontana) each one is a famous holiday resort.

The island offers not only the sea but also thermal spring waters and beautiful walks up to the top of Mount Epomeo, 790 meters high.

The island was founded by the Greeks in the 8th century B.C. and still bears witness to its past: the necropolis of Lacco Ameno, the Aragonese Castle, the old harbour town at Ischia Ponte, the church of Soccorso of Forio.

3. Hotel Continental Terme

The Hotel Continental Terme is situated in a park covering 30,000 square meters and is a venue frequented by a prestigious clientele from home and abroad.

The refined elegance of its rooms and halls make it an exclusive place to take a rest cure, spend holidays or conduct business.

Meeting rooms are equipped with the most advanced technology and are used all year round for seminars, conferences and conventions.

The comfortable rooms and elegant suites, the carefully prepared regional and international cuisine, the many heated swimming pools, the sports and the delightful climate turn every business meeting into a pleasurable holiday.

The efficient service completes the picture and adds the fascination of traditional hospitality.


4. Congress Desk Registration
The Congress Desk will be open and will be available for your messages from 5.00 p.m. to 7.00 p.m. Monday, October 6th and every Conference day at the hotel Continental Terme from 09.00 a.m.

At the registration, the participants and their accompanying persons will receive congress materials, information of social events and identification badges which should be worn at all sessions and related activities.

5. On Connection Naples - Ischia Porto

Ischia island can be reached by fast ship (ca. 40 min.) from Naples city port (Molo Beverello) or from harbour Mergellina (cost about 12 Euro) and by ferry (Molo Beverello), cheaper than the fast ship (half price, about 80 min.). From “Beverello” there are boats or fast ships (Alilauro Line or Caremar Line) about every hour for Ischia. Last trip at 9.50 p.m.. From “Mergellina” there are fast ships (Alilauro Line) about every hour for Ischia. Last trip at 8.00 p.m..

6. On Arrival

We suggest arrival by flight in Naples airport Capodichino, which is approximately 8 Km from Naples city port.
A cheap bus (Alibus, cost 2 Euro) leaves every 30 minutes (first run 6.30 a.m. last run 11.30 p.m.) to the city port (Molo Beverello, last stop) and the trip takes about 30 minutes.
If you intend to take a taxi (about 20 Euro), several companies work between the airport and the city port.

7. Insurance

The Organising Committee does not accept responsibility for any personal injury, damage or loss of property which can occur in connection with Congress or any of the programmed events. You are kindly requested to check the validity of your own insurance.

8. Electrical appliances

All electrical appliances in Italy are run at 220 V.

9. Climate

The average temperature at the beginning of October in Ischia is 15-20 C° (59-68° F). Rain is possible.

10. Time

Italy is two hours ahead of Greenwich Mean Time during the month of October.
SOCIAL EVENTS (for all participants and their accompanying persons)

**Registrazion and Reception** – Monday, October 6th 2003 (6.00 p.m. – 8.00 p.m.)
Reception and early registration will be held at the Conference Venue, the Hotel Continental Terme.

**Cultural Social Program** – Tuesday, October 7th 2003 (6.00 p.m. – 8.00 p.m.)
Four – hands grand–piano concert at the Conference Venue, the Hotel Continental Terme

**Conference Tour** – Wednesday, October 8th 2003 (2.00 p.m. – 8.00 p.m.)
Tour around the island of Ischia by bus
Guided tour to admire the Poseidon Garden and to visit the most beautiful sites of the island Ischia

**Gala Dinner** – Thursday, October 9th 2003 (8.00 p.m.– 11.00 p.m.) at the Conference Venue, the Hotel Continental Terme

EXCURSIONS

The following daily excursions can be organised for partecipants at the Congress and/or accompanying persons:

To **Capri island**;
To **Pompeii, Herculaneum and Vesuvio**;
To **Sorrento, Positano, Amalfi and Ravello**.
Tours can be booked and paid at the concierge of the Hotel Continental Terme. (approximate prices per person)

- **Tour around the island by boat** (half day)
  Guided tour to admire the most beautiful bays of the island from the sea. € 22,00

- **Visit to the old town-centre of Ischia Ponte and to the Aragonese Castle** (half day)
  Guided tour with visit of the cathedral, the old town and the Aragonese Castle. € 22,00

- **Visit to Naples and to the Phlegrean Fields** (full day)
  Tour of Naples with visit of the cathedral, the National Archeological Museum. In the afternoon visit of the Solfatara and the Roman amphitheatre in Pozzuoli (lunch not included). € 48,00

- **Visit to Capri** (full day)
  Tour of island with visit of the Chartreuse, the villa of Axel Munthe, the "Faraglioni" and the town of Anacapri. Lunch and visit of the Blue Grotto not included. € 48,00

- **Visit to Vesuvius and Pompei** (full day)
  Visit of the excavations of the roman town of Pompei. In the afternoon tour to the top of Vesuvius with panoramic view on the Gulf of Naples (lunch not included). € 48,00

- **Visit to Sorrento, Positano, Amalfi, Ravello** (full day)
  Tour with visit of Sorrento, Positano, Amalfi and its cathedral, Ravello and Villa Rufolo