17TH INTERNATIONAL CONFERENCE ON SHIPS AND SHIPPING RESEARCH
&
ADVANCING WITH COMPOSITES 2012 SYMPOSIUM

TIME SCHEDULE AND PROGRAM

CENTRO CONGRESSI FEDERICO II
NAPOLI
17-19 OCTOBER 2012

organised by
Wednesday 17th October 2012

Centro Congressi Federico II - Aula Magna

8:30 - 9:30 Registration
9:30 - 10:30 Conference opening
  Welcome addresses
10:30 - 11:00 Invited speech of Guest Country
  11:00  Coffee break
11:30 - 13:00 Workshop
  Energy saving and High Efficiency Devices
  13:15 - 14:15  Buffet lunch

Centro Congressi Federico II - Conference Rooms

14:30 - 18:30  Technical Sessions

<table>
<thead>
<tr>
<th>Room A</th>
<th>Room B</th>
<th>Aula Magna</th>
</tr>
</thead>
<tbody>
<tr>
<td>The operational stream (1)</td>
<td>The research stream (1)</td>
<td>The economic, logistic and environmental issues stream (1)</td>
</tr>
<tr>
<td>Conceptual &amp; Practical Ship Design</td>
<td>Numerical &amp; Experimental Hydrodynamics</td>
<td>Ship Management &amp; Safety</td>
</tr>
</tbody>
</table>
Thursday 18th October 2012

Centro Congressi Federico II - Conference Rooms

9:00 - 13:00         Technical Sessions

<table>
<thead>
<tr>
<th>Room A</th>
<th>Room B</th>
<th>Aula Magna</th>
</tr>
</thead>
<tbody>
<tr>
<td>The operational stream (2)</td>
<td>The research stream (2)</td>
<td>The economic, logistic and environmental issues stream (2)</td>
</tr>
<tr>
<td>Concept &amp; Practical Ship Design</td>
<td>Numerical &amp; Experimental Hydrodynamics</td>
<td>Maritime Economics &amp; Logistics</td>
</tr>
<tr>
<td>Warships Design and Technology</td>
<td>Stability, Sea keeping &amp; Maneuverability</td>
<td>Short Sea Shipping and Inland Navigation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Factors - Comfort on board</td>
</tr>
</tbody>
</table>

13:30 - 14:30    Buffet lunch

Palazzo Reale di Napoli, Piazza Plebiscito

15:00 - 17:30

Social event - Guided visit of Palazzo Reale Interiors  
*transfer from Centro Congressi by coach*

Angiporto Galleria, Napoli

17:30 - 18:30

Social event - Visit of the Ascione Corl Jewels Exhibition  
*reservation required*  
*walking distance from Palazzo Reale*

Le Arcate, Via Aniello Falcone, 249

20:00 - 23:00

Social event - Gala Dinner  
*dress code: formal*  
*transfer from Centro Congressi by coach*
**Friday 19th October 2012**

**Centro Congressi Federico II - Conference Rooms**

9:00 - 13:00     Technical Sessions

<table>
<thead>
<tr>
<th>Room A</th>
<th>Room B</th>
<th>Aula Magna</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>The operational stream (3)</em></td>
<td><em>The research stream (3)</em></td>
<td><em>Symposium on composites</em></td>
</tr>
<tr>
<td>Environmental Impact of Marine Operations</td>
<td>Structural Design and Production Technology Offshore Vessel Design and Engineering</td>
<td>Innovative Fabrication Technologies Application of Advanced Composites Naval Composites Design Composites Durability and Reliability</td>
</tr>
</tbody>
</table>

13:15 - 14:15     Buffet lunch

14:30 - 17:00     Technical Sessions

<table>
<thead>
<tr>
<th>Room A</th>
<th>Room B</th>
<th>Aula Magna</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>The operational stream (4)</em></td>
<td><em>The research stream (4)</em></td>
<td><em>Workshop</em></td>
</tr>
<tr>
<td>Yacht &amp; Pleasure Craft Design Work Boats and Fishing Vessels</td>
<td>Ship Propulsion</td>
<td>Water Ballast Management</td>
</tr>
</tbody>
</table>

**Centro Congressi Federico II - Aula Magna**

18:00     Conclusions and conference closure
Conference Opening and Invited Speeches

Wednesday 17th October 2012
Time: 8:30 - 11:00
Centro Congressi Federico II - Aula Magna

Registration
Welcome addresses
- Deans of the Universities Federico II and Parthenope
- Naples Municipality
- Campania Region
- Italian Navy / National Research Council
- Italian Ministry of Transportation

Invited speech of the Guest Country
Greece, maritime industry and research centres
Panos Yannoulis, Oceanking Technical & Trading S.A., Piraeus

Time: 11:00 - Coffee break
The Operational Stream

Wednesday, 17th October 2012
Time: 14:30 - 18:30
Centro Congressi Federico II - Room A

Conceptual & Practical Ship Design (1)

Chairperson: Claire de Marco, University of Malta

Opening keynote lecture
Evolutional ship design concept for the final phase of EEDI
*Noriuki Sasaki*

Preliminary study of hull dimension optimization of medium-speed monohull passenger ferries
*Wolter Roberth Hetharia, Philippe Rigo, Andre Hage*

Low-Emissions of Small Crafts by Minimizing Hull’s Drag: a Trimaran approach
*Carmine Giuseppe Biancardi, J. Kutcher, R. Datla*

Building no-standard and innovative vessels in high-standardized and production oriented Far-East shipyards: the ship-owner perspective
*Enrico Allieri, Maria Garbarini*

Benchmarking existing and new designs
*Koos Willem Frouws*

Time: 16:30 - Coffee break

Chairperson: Noriuki Sasaki, National Maritime Research Institute, Tokio

Concept for a Modular Nuclear Powered Merchant Ship
*Jonathan Gravina*

Electric drives for side-rolling hatch covers: an environmentally-friendly and economical solution
*Dahl Torbjorn*

A procedure for the preliminary selection of the main characteristics of a fleet of ships for a given trade
*Giuliano Vernengo, Enrico Rizzuto, Roberto Longo, Angelo Lo Nigro*

Ship added resistance evaluation in the perspective of decision making for energy saving
*Paola Gualeni, Maurizio d'Amico, Giorgio Guadagna, Giovanni Colotto*

A dashboard for a ship design space exploration
*Francesco Perra, Aldo Guagnano, Alessandro Bonvicini*
Conceptual & Practical Ship Design (2)

Chairperson: Carmine Giuseppe Biancardi, University of Naples Parthenope

Energy Management: a holistic operational strategy to enhance ship energy efficiency of ships in service
Luca Sebastiani, Alessandro Pescetto

A ship knowledge based framework for the dashboard
Alessandro Bonvicini, Francesco Perra, Aldo Guagnano

Warship Design and Technology

Chairperson: Carmine Giuseppe Biancardi, University of Naples Parthenope

Rolling stability of surfacing submarine
Sergei L Karlinsky, Andrew V Efimov

Experimental and numerical investigation of the flow around a submarine snorkel mast
Salvatore Marrone, Benjamin Boucassee, Andrea Colagrossi, Franco Di Ci, Marco Masia

Numerical Simulation of Full-Appended Submarine
Stefano Zaghi, Riccardo Broglia

Time: 10:15 - Coffee Break

Chairperson: Claudio Boccalatte, Italian Navy

A systematic approach for military vessels crew sizing and its validation by comparison with in service naval ships
Luigi Manfreda

Italian navy submarines air independent propulsion system: proton exchange membrane fuel cells reactants and technical gases production, storage and topping-up deployable station powered by renewable energy
Maurizio Cannarozzo, Gianpaolo Damiano Bono, Luca Rubini

Italian navy submarine search and rescue organization: assets, procedures, new projects
Maurizio Cannarozzo

The Italian Navy toward an alternative to fossil fuels for military use
Pasquale Tripodi
Amerigo Vespucci: propulsion and generation system retrofitting of the italian training tall ship
Lucio Piva
The Operational Stream

Friday, 19th October 2012
Time: 9:00 - 13:00
Centro Congressi Federico II - Room A

Environmental Impact of Marine Operations

Chairperson: John Wills, IMarEST, UK

CART Cooperative Autonomous Robotized Towing system
Ettore Ardito

Device and methods for the recovery of substances and/or liquid floating in open sea
Andrea Agrusta, Filippo Bianco, Giuseppe Perrella, Luigi Perrella, Igor Zotti

Monitoring of exhaust emissions: the path to environmental efficiency
Alessandro Stefani

Recent advances in the control of the impact of the underwater noise emissions by commercial ships
Tomaso Gaggero, Mike Van Der Schaar, Enrico Rizzuto, Michel André

An Economic Analysis of the Costs Effectiveness Function for Measuring Ships’ Technology Abatement Potential
Jacobus Frouws, Christa Sys, Thierry Vanelslander, Gilbert Yella

Time: 10:30 - Coffee Break

Chairperson: Vadim Goncharov, Saint Petersburg State Marine Technical University, Russian Federation

Modelling the outdoor noise propagation for different ship types
Aglaia Badino, Davide Borelli, Tomaso Gaggero, Enrico Rizzuto, Corrado Schenone

Monitoring systems: a strategic tool to enhance ship energy efficiency
Alessandro Pescetto, Luca Sebastiani

Marine gas turbine pollutant emissions assessment
Giovanni Battista Benvenuto, Marco Altosole, Ugo Campora, Michele Martelli, Luca Bruga

The use of nautical X band radar systems for the sea state monitoring
Marcello Vivoli, Massimo Carmagnini, Giovanni Ludeno, Mauro Manente, Francesco Serafino

Recent and Imminent Environmental Regulations - Challenges and Opportunities for the International Shipping Community
Panos Yannoulis
Environmental Impact of Marine Operations (2)

Chairperson: Carlo Podenzana Bonvino, University of Genova

Key note oral presentation
The EU research effort towards the control of noise emissions from ships: the SILENV Project (Seventh Framework Programme)
Enrico Rizzuto

Shore-side power supply of ships as a possible solution to the environmental pollution in the harbours
Maurizio Fantauzzi, Luigi Battistelli, Tommaso Coppola, Franco Quaranta

Yacht and Pleasure Craft Design

Chairperson: Carlo Podenzana Bonvino, University of Genova

Stepped hulls: model experimental tests and sea trial data
Luigi Vitiello, Salvatore Miranda, Flavio Balsamo, Sebastiano Caldarella

A new proposal for the propulsion of a hybrid motor-sailer catamaran
Vittorio Bucci, Alberto Marinò

ANN Wind Forecast for Safety at Sea and Yacht Racing Tactics
Francesca Tagliaferri, Robert Dow, Ignazio Maria Viola

Time: 15:30 - Coffee break

Chairperson: Gaetano Messina, ATENA

Experimental and numerical evaluation of an innovative planning hull
Filippo Cucinotta, Baldo Bono, Eugenio Guglielmino, Igor Zotti

Influence of the “Safe Return to Port” standards on the integrated design and arrangements of small passenger ships
Vittorio Bucci, Alberto Marino’

Multifunctional Catamaran
Luca Carboni

Workboats and Fishing Vessels

Chairperson: Gaetano Messina, ATENA

Energy performance evaluation for fishing vessels
Emilio Notti, Antonello Sala, Gabriele Buglioni
Numerical and Experimental Hydrodynamics (1)

Effective Power Requirements for High Speed Catamarans in Calm Water during the Preliminary Design Stage
Renato Skejic

Flow survey of a catamaran model in steady drift
Riccardo Broglia, Giovanni Aloisio, Massimo Falchi, Silvano Grizzi, Stefano Zaghi, Mario Felli, Massimo Miozzi, Francisco Pereira, Fabio Di Felice, Frederick Stern

Design and analysis of conventional and ducted propellers: a numerical approach
Stefano Gaggero, Diego Villa, Stefano Brizzolara

Cavitation Tunnel Tests on Ducted Propellers
Michele Viviani, Cesare Mario Rizzo, Chiara Bertoglio, Daniele Bertetta, Francesco Conti

Time: 16:00 - Coffee Break

Extended Newman’s approximation for the second order drift force in short crested waves
Alexandre Robin Giovanni Azzalini, Shuangxing Du, Richard Antony May

Openship Project - Numerical predictions of ship and propeller hydrodynamics by CFD: results from preliminary benchmark
Giorgio Contento, Norman Del Puppo, Guido Lupieri, Mitja Morgut, Enrico Nobile, Genuzio Harpo, Gianpiero Lavini

An Efficient Viscous/Inviscid Coupling Method for the Prognosis of Propeller-Induced Hull Pressure Fluctuations
Stephan Berger, M. Bauer, M. Drukenbrod, M. Abdel-Maksoud

Added resistance determination in regular sea according to ittc recommendation
Ermina Begovic, Andrea Bove, Paolo Fusco, Salvatore Miranda
Thursday, 18th October 2012
Time: 9:00 - 13:00
Centro Congressi Federico II - Room B

**Numerical and Experimental Hydrodynamics (2)**

*Chairperson: Milorad Motok, University of Belgrade*

Unconventional Interceptors: Experimental Study on Resistance Reduction and Dynamic Instability
*Claudio Pensa, Fabio De Luca*

A stable semi-lagrangian potential method for the simulation of ship interaction with unsteady and nonlinear waves
*Antonio De Simone, Luca Heltai, Andrea Mola*

**Stability, Seakeeping and Maneuvrability**

*Chairperson: Milorad Motok, University of Belgrade*

Operational efficiency at sea of a new oceanographic vessel at the design stage: a detailed study over the central Mediterranean sea using medium resolution hindcast wave data
*Giorgio Contento, Francesca Mocnik, Guido Lupieri, Marco Parapetto, Gabriele Catapano*

Time domain prediction of motions of marine vehicles in waves
*Cristina Gironi, Dario Bruzzone*

*Time: 10:30 - Coffee Break*

*Chairperson: Luca Sebastiani, SEASTEAMA SpA, Italy*

Hight speed fluttering skids with elastic suspensions
*Gianluca Pepe, Antonio Carcaterra*

A Fully Nonlinear Potential Flow Method for Three-Dimensional Body Motions
*Martin Kjellberg, Giorgio Contento, Carl-Erik Janson*

A parametric prediction of added resistance in waves
*Cristina Gironi, Enrico Rizzuto, Dario Bruzzone*

Subdivision and damage stability: the maxVCG method
*Maria Acanfora, Tommaso Coppola, Fabio De Luca*
Friday, 19th October 2012
Time: 9:00 - 13:00
Centro Congressi Federico II - Room B

**Structural Design and Production Technology**

Chairperson: Eugenio Guglielmino, University of Messina

Residual strength of damaged oil tanker in the Adriatic sea
*Jo Parunov, Zrinka Buri, Branka Buzancic Primorac*

Response of a ship structural detail under low cycle fatigue loading
*Vincenzo Crupi, Wolfgang Fricke, Eugenio Guglielmino, Luciano Musumeci, Hans Paetzold*

Preliminary design of water breakers’ platings for container ships
*Antonio Scamardella, Vincenzo Piscopo*

*Time: 10:30 - Coffee break*

**Offshore Vessel Design and Engineering**

Chairperson: Antonio Paciolla, University of Naples Federico II

Dual compensation control-system for offshore logistic equipment
*Luigi Cannizzaro, Antonio Giallanza, Giuseppe Marannano*

The Longest Floating Bridge Connecting Two Continents: TRANSMAR
*Metin Taylan, Yalcin Unsan*

Experimental and Analytical Methods in FSRU Bilge Keels Design
*Federico Gaggiotti, Andrea Esposito, Andrea Del Guzzo, Cristian Alberto Rossetti*
Friday, 19th October 2012
Time: 14:30 - 17:00
Centro Congressi Federico II - Room B

**Ship Propulsion**

**Chairperson: Giovanni Battista Benvenuto, University of Genova**

Effects of mass and inertia changes on the equations of motion of a vessel
*Massimo Figari, Stefano Vignolo*

“99 Xvintage project” the Wartsila Dual Fuel solution for a breakthrough concept
*Stefano de Marco*

Hydro-lock phenomena on Four Stroke Medium Speed Marine Diesel Engines
*Giulio Gennaro, Andrea Gennaro*

*Time: 15:30 - Coffee Break*

**Chairperson: Mario Maestro, University of Trieste**

Dynamic Simulation of a COGAS Ship Propulsion Plant
*Giovanni Benvenuto, Daniele Bertetta, Ugo Campora, Federico Carollo*

Hybrid propulsion by gas engines for an ASD harbour tug
*Massimo Altosole, Massimo Figari, Luca Martinelli, M.Raimondi*

A computer program for predict the resistance and power of ship
*Blenard Xhaferaj, Agron Dukaj*
The Economic, logistic and environmental issues stream

Wednesday, 17th October 2012
Time: 14:30 - 18:30
Centro Congressi Federico II - Aula Magna

Ship Management and Safety

Chairperson: Umberto Masucci, Federagenti

Criterion for comparison of risks at planning of navigation in ice conditions
Vadim K. Goncharov

Reflections on the sidelines of a shipwreck
Silvia Piardi, Irene Pasina, Silvia Tieghi

Product innovation in Maritime Satellite Communications
Gennaro Faella

Interaction of ships under navigation in ice conditions
Vadim K. Goncharov

Time: 16:30 - Coffee break

Chairperson: Maurizio d’Amico, Società d’Amico di Navigazione

A new mean of validation of maritime systems through an extensive application of formal safety assessment
Francesca Matarese, Daniela Dell’Amura

Seasonal bias in the voluntary ship observations of significant wave height in a North Atlantic location
Carlos Guedes Soares, Roberto Vettor

An innovative methodology for maritime security risk management to design cost-effective defence systems
Francesca Matarese, Patrizia Montefusco, José Fonseca

Marine Accident Analysis with GIS
Ozkan Ugurlu, Umut Yildirim, Ercan Yuksekyildiz
Thursday, 18th October 2012  
Time: 9:00 - 13:00  
Centro Congressi Federico II - Aula Magna

**Maritime Economics and Logistics**

Chairperson: Federica Valdenazzi, CETENA

*Key note oral presentation*  
Italian Shipping and present problems: an overview by a young shipowner  
*Andrea Garolla*

The relationship between the Boone indicator and the Herfindahl Hirschman Index  
*Christa Sys*

The Cost of Damage  
*Alessio Gnecco*

**Human Factor and Comfort on board**

Chairperson: Federica Valdenazzi, CETENA

Training staff of ships cruise in the context of risk: strategies for effective communication  
*Maria Luisa Iavarone*

*Time: 10:30 - Coffee break*

Chairperson: Christa Sys, University of Antwerp

A methodology for the numerical prediction of propeller tonal noise  
*Federica Valdenazzi, Francesco De Lorenzo*

**Short Sea Shipping & Inland Navigation**

Chairperson: Christa Sys, University of Antwerp

Investigation of Short Sea Shipping Policy, Service and Lines in Turkey  
*Arife Tugsan Isaičik Colak, Sevilay Can*

Integrating ship design and transport economics in an application for the reactivation of the small inland shipping network  
*Edwin van Hassel*
Advancing with Composites 2012 Symposium

Friday, 19th October 2012
Time: 9:00 - 11:00
Centro Congressi Federico II - Aula Magna

Opening keynote lecture
Composites in the Marine Environment - Challenges and Recent Advances
Yapa D.S. Rajapakse

Innovative Fabrication Technologies
Hybrid Composite Hull Panels Fabricated Using Vacuum Bagging Techniques
Claire De Marco Muscat-Fenech, Jeremy Cortis, Charles Cassar

Biocomposites for Structural Applications in Marine Field
Andrea Ratti

Application of Advanced Composites
Fiber-metal hybrid laminated material solution for Shipbuilding and Offshore renewable energy devices
Miguel Angel Herreros Sierra

Design of composite patch repairs of naval structures
Giovanni Risso, Elena Rodriguez, Izabela Lubowiecka, Edgar Brais Blanco

Time: 11:00 - Coffee break

Naval composite design
Structural optimization of innovative rudder and flap for HSC
Antonio Giallanza, Giuseppe Marannano, Antonino Pasta

Modelling the Post-Elastic Response of Composite Structures Loaded Dynamically
Roberta Massabo

Composites Durability and Reliability
Disposal to End of Life of Composites Leisure Yachts
Andrea Giovani

Durability of Vinylester and Carbon/Vinylester Exposed To Seawater
Leif A. Carlsson, Alex Figliolini
Workshops

Energy saving and High Efficiency Devices

Wednesday, 17th October 2012
Time: 11:30 - 13:00
Centro Congressi Federico II - Aula Magna

Chairperson: Umberto d’Amato, Perseveranza Compagnia di Navigazione, Italy

Panelists:
- Walther Bauer, Becker Marine Systems
- Dario Bocchetti, Grimaldi Napoli
- Andrea Cogliolo, RINA
- Giorgio Fabbi, International Paint
- Ernesto Fasano, University of Naples
- Adam Larsson, DNV
- Luca Martinelli, Rosetti Marino Shipyards
- Gyrd Mortensen, Novenco Marine & Offshore
- ...and more from the audience

Water Ballast Management

Friday, 19th October 2012
Time: 14:30 - 17:00
Centro Congressi Federico II - Aula Magna

Chairperson: Massimo de Domenico, Fratelli d’Amico Armatori S.p.A., Italy

Panelists:
- Dario Cacciottoli, Warsila Hamworthy
- Roberto Comelli, Alfa Laval
- Pawel Kowal, Ocean Saver AS - Consilium
- Stefan Resaz, Panasia - Jobson Italy
- Nello Sulfaro, RINA SpA
- ...and more from the audience
NAV 2012 Organisation

EXECUTIVE COMMITTEE

- Bruno Della Loggia (ATENA Nazionale) - Chairman
- Roberto Balestrieri (ATENA Napoli Sud Italia)
- Ignazio Crivelli Visconti (Università di Napoli Federico II - Chairman AMME)
- Umberto D’Amato (Perseveranza SpA Napoli)
- Eugenio Guglielmino (Università di Messina)
- Umberto Masucci (Federagenti)
- Salvatore Miranda (Università di Napoli Federico II)
- Enrico Rizzuto (Università di Genova)
- Raffaele Santamaria (Università di Napoli Parthenope)

ORGANISING COMMITTEE

- Bruno Della Loggia (ATENA Nazionale) - Chairman
- Roberto Balestrieri (ATENA Napoli Sud Italia)
- Pietro Canepa (ATENA Genova)
- Alberto Moroso (ATENA Napoli)
- Antonio Paciolla (ATENA Napoli)
- Antonio Scamardella (Università di Napoli Parthenope)
- Gianfranco Damilano (ATENA Nazionale) Conference Secretariat

INTERNATIONAL SCIENTIFIC COMMITTEE

An international committee, chaired by Prof. Mario Maestro of the University of Trieste, was established with the participation of representatives of international academic institutions and relevant industry sectors. About 130 abstracts were submitted for the critical consideration of the tracking administrators and the peer reviewers, and, after this screening, the selected papers were subject to final review and recommendations from the reviewers. The high scientific value of the papers presented to NAV 2012 has therefore been amply assured.
ABOUT NAV


ABOUT ATENA

ATENA, the Italian Association of Naval Technology, is a cultural non-profit organization founded in 1948 by the Italian College of Naval and Mechanical Engineers in Genova. The Association aims to promote maritime culture, disseminate the latest scientific and technical findings in naval engineering and offshore industries, and encourage developments in related fields.

The Association pursues its statutory objectives through publications (journals, memoirs, magazines, newspapers, websites, social media, etc.) as well as through the organization of congresses, conferences, debates, and technical committees for the study of specific problems and implementation of specific programmes. Its members contribute professionally to the design, construction, and operation of all kinds of marine craft, with a focus on transport safety and the protection of the marine environment.

THE UNIVERSITY FEDERICO II

The founding of the University of Naples, which today is known as “Federico II”, was made possible by the generalis lictera of the Swabian Emperor, sent from Syracuse on June 5, 1224. The Emperor, who was also king of Sicily, designated as the seat of the studium generale of the kingdom a town in the Campanian region, which already had a tradition of learning. The new University is therefore the oldest of those still existing to be founded by sovereign dictate (usually they were the result of corporate initiatives from below). The Faculty of Engineering of the University of Naples Federico II, one of the oldest in Italy, has its origins in the School of Application for Engineers of Bridges and Roads, established in 1811 by Joachim Murat during the French occupation of the Kingdom of Naples. Established as a Polytechnic School in the early 1900s, it became a Faculty of the University of Naples in 1935.

THE UNIVERSITY PARTHENOPE

The origin of the University of Naples “Parthenope” (ex Istituto Universitario Navale) dates back to 1919, when the Regio Istituto di Incoraggiamento di Napoli, together with the Government and Institution, stated its objective of establishing a higher centre of culture in which the sea was “designed as it is, as it produces and as a medium of exchange”. Alongside the development of scientific culture, the centre of culture was to prepare minds to consider a “conscious exploitation of the economic problems related to the sea”. It was therefore a clear cultural and social imperative on the part of the local Authorities which led to the birth of the cultural centre, which was recognised under RD No 1157, 30 May 1920. The Regio Istituto Universitario Navale was divided into sections: Teaching, training of teachers in nautical disciplines, owners, training of managers of ship-owners, marine insurance, etc.

THE CENTRE FOR COMPOSITE MATERIALS

The Centre for Composite Materials (CMC) was established in the mid-70s with the aim of increasing knowledge about composite materials on the part of industries, universities and interested people by means of national and international conferences, meetings, and technical courses. It operates within the National Mechanical Society, with strong co-operation with DIMP, the Materials and Production Engineering Department of the University of Naples Federico II. CMC also has strong connections with ESCM, the European Society for Composite materials, being one of the founder members of this Society in the mid-80s.
Conference Secretariats

- NAV 2012 Organising Committee, ATENA General Secretary
  Atena.segreteria@gmail.com

- NAV 2012 Local Organising Committee, ATENA Naples Branch
  NAV2012@unina.it

- AwC2012 Symposium Scientific Secretariat, University of Naples Federico II
  cliglia@unina.it, crivisco@unina.it

- Web Applications: InforMARE SpA, Genova
  info@informare.it

- Logistics, Accommodation, Social Events: Media Congress SaS, Naples
  giusyscurini@mediacongress.it

- Press contacts: Roberta del Vaglio
  robertadelvaglio@gmail.com

- Media Partner: TTM
  marletta@ilsecoloxix.it
  http://www.atenanazionale.it/nav

http://www.atenanazionale.it/nav