



18TH INTERNATIONAL CONFERENCE ON SHIPS AND SHIPPING RESEARCH

TIME SCHEDULE AND PROGRAM



The event is held under the patronage of:



POLITECNICO DI MILANO



POLO TERRITORIALE
DI LECCO



**Scuola
Politecnica**
Università degli
Studi di Genova

NAV 2015 – Time schedule

Wednesday, 24TH June 2015
Campus of Lecco Branch of Politecnico di Milano
 Main Hall

08.00 - 09.00 Registration
 09.00 - 10.30 Conference Opening
 Welcome addresses

10.30 Coffee break

11.00 - 13.00	Workshops	Room A 1.1	Room B 0.1
		<i>Fisheries & Aquaculture</i>	<i>Maritime Renewable Energies</i>

Conference Rooms
 11.00 – 13.00 Technical Sessions

Room B 1.1	Room B 1.5	Room -
Warship Design and Technology I	Conceptual and Practical Ship Design	-

13.00 – 14.00 Buffet Lunch

14.00 - 18.30	Workshop: Room B 0.1	<i>More Efficient & Greener Ships</i>
---------------	-------------------------	---

Conference Rooms
 14.00 – 16.00 Technical Sessions

Room B 1.1	Room B 1.5	Room A 1.1
Warship Design and Technology II	Maritime Sustainability	Human Factor and Comfort Onboard

16.00 Coffee break

Conference Rooms
 16.30 – 18.30 Technical Sessions

Room B 1.1	Room B 1.5	Room A 1.1
Offshore Vessels and Floating Plants	Maritime Economics and Logistics	Aesthetic and Interior Design of Passenger Ships

Thursday, 25TH June 2015
Campus of Lecco Branch of Politecnico di Milano

09.00	-	12.30	Workshops:		
				Room B 0.1	Room A 1.1
				<i>LNG: where we are?</i>	<i>MOSAIC - Materials Onboard: Steel Advancement and Integrated Composites</i>

Conference Rooms

09.00 – 10.30 Technical Sessions

Room B 1.5	Room B 1.1	Room C
Ship Energy Efficiency I	Seakeeping, Stability and Maneuverability I	-

10.30 Coffee Break

Conference Rooms

10.30 – 12.30 Technical Sessions

Room B 1.5	Room B 1.1	Room C
Ship Energy Efficiency II	Seakeeping, Stability and Maneuverability II	-

12.30 Buffet Lunch

13.30 -22.30

13.30 departure for visit to EXPO 2015

19.30 Conference Dinner

at Cascina Triulza

Friday, 26TH June 2015
Campus of Lecco Branch of Politecnico di Milano

09.00 - 18.00 Symposium on
Room B 0.1 *Advance Solutions for Yacht Efficiency*

Conference Rooms

09.00 – 10.30 Technical Sessions

Room B 1.1	Room B 1.5	Room A 1.1
Numerical and Experimental Hydrodynamics I	Ship Propulsion and Machinery I	Ship Management, Safety and Security I

10.30 Coffee Break

Conference Rooms

11.00 – 13.00 Technical Sessions

Room B 1.1	Room B 1.5	Room A 1.1
Numerical and Experimental Hydrodynamics II	Ship Propulsion and Machinery II	Ship Management, Safety and Security II

13.00 Buffet Lunch

Conference Rooms

14.00 – 16.30 Technical Sessions

Room B 1.1	Room B 1.5	Room A 1.1
Numerical & Experimental Hydrodynamics III	Structural Design	Fishing Vessels and Inland Navigation

16.30 Conference Closure

Conference Opening and Invited speeches

Wednesday, 24TH June 2015

Time: 08.30 – 10.30

Campus of Lecco Branch of Politecnico di Milano – Room A

Registration

Welcome addresses

- Prof. Marco Bocciolone, dean of Lecco Branch of Politecnico di Milano
- Dr. Vico Valassi, chairman of Lecco Chamber of Commerce
- Prof. Aristide Massardo, dean of Politechnic School of University of Genoa
- Adm. Stefano Tortora, Head of Maritime Engineers Officers Corps, Italian Navy

Invited speech:

Massimo Debenedetti, Vice President Research and Innovation, Fincantieri
Research & Innovation in the ship building industry: Fincantieri's approach

Alessandro Panaro, Head of Maritime and Mediterranean Economy, SRM
The Maritime Relations between Italy and Mediterranean area: the shocking phenomena

Time: 10.30 - Coffee Break



Wednesday, 24TH June 2015

Time: 11.00 – 18.00

Room B 1.1

Warship Design & Technology I

Time: 11.00 – 13.00

Chairperson: Stefano Tortora, Italian Navy

The new Italian Navy shipbuilding program: an innovative approach to naval design

Sergio Simone

A distributed simulation framework for naval operations' assessment

Davide Tozzi, Sergio Simone

Design of a modular Mission Bay for a multirole patrol vessel

Albino Grimaldi

Interceptor device for a high-speed displacing craft (comparison between CFD simulation and experimental data)

Fabio De Luca, Simone Mancini, Andrea Manfredini, Claudio Pensa, Raffaele Scognamiglio

The influence of the operational scenarios on the propulsion system selection in the preliminary naval ship design

Arcangelo Menna, Francesco Perra, Marco Altosole, Massimo Figari, Federica Piastra

Operational effectiveness trade-offs analysis in the preliminary naval ship design

Fabio Troiano, Francesco Perra, Aldo Guagnano, Francesco Taddei

An overview of innovative technologies onboard Italian Navy ships for a more efficient platform system and electrical plant operation

Teresa Mazzucca, Michele Torre

13.00 Buffet Lunch

Warship Design & Technology II

Time: 14.00 – 16.00

Chairperson: Stefano Tortora, Italian Navy

A new concept of a very high speed craft: design issues

Carlo Podenzana Bonvino, Marco Ferrando, Stefano Gaggero, Diego Villa, Davide De Mitri, Cristina Gironi

A numerical method to predict far field noise from naval propellers

Erica Firenze, Federica Valdenazzi, Ottavio Pinto

Wall pressure models for self noise prediction

Elena Ciappi

Operational effectiveness, functions and naval tasks: a multi-dimensional environment for the definition of naval units

Francesco Perra, Paola Gualeni, Massimo Paolucci, Fabrizio Bracco, Eva Riccomagno, Francesco Lupi, Marco De Luca, Aldo Guagnano, Francesco Taddei, Ivan Santic

Unified trade-off environment: a listening to experts opinion in the preliminary warship design

Ivan Santic, Paola Gualeni, Francesco Perra

16.00 – Coffee Break

Offshore Vessels & Floating Plants

Time: 16.30 – 18.00

Chairperson: Roberto Faldini, Saipem

“Overdrill” and “Proxima”: innovative ultra deep water drillship designs

Gianni Scherl, Luca Ambrosio

Smart thrust allocation procedures in early design stage dynamic positioning predicitions

Francesco Mauro, Radoslav Nabergoj

Wave grouping identification from vessel response

Federico Gaggiotti, Fabio Dezi, Roberto Bruschi, Giulia De Masi

Ice property measurement campaign in the North Caspian Sea

Andrea Cijan, Silvio Stenta, Emanuele Putorti, Islam Yermekov

Wednesday, 24TH June 2015

Time: 11.00 – 18.00

Room B 1.5

Conceptual and Practical Ship Design

Time: 11.00 – 13.00

Chairperson: Paola Gualeni, University of Genoa, Italy

Hydrodynamic ship design optimization considering uncertainty

Emilio F. Campana, Frederick Stern, Matteo Diez

MONOTRICAT® Hull, first displacement naval hull navigating at speeds of planning hulls, on spray self-produced, at high hydrodynamic efficiency and energy recovery

Luigi Mascellaro, Lilit Axner, Jing Gong

Multipurpose air cushion platform

Angelo Odetti, Marco Mastrangeli

Four point bend test to define the mechanical properties on thermally toughened laminated glass for marine application

Carlo Dellabiancia, Christian Piola, Simone Parizzi, Marco Martinelli

Conceptual and practical design of a hospital ship – An architectural approach of a conversion from ferry

Andreas Tsokos Pappas, Stavros Giftopoulos, Thomas Mazarakos

13.00 Buffet Lunch

Maritime Sustainability

Time: 14.00 – 16.00

Chairperson: Carlo Podenzana Bonvino, University of Genoa, Italy

Measurement of underwater radiated noise from merchant vessels and related issues

Francesco De Lorenzo, Ruggero Dambra

Sound propagation at sea: a parametric investigation

Donatella Tamà, Tomaso Gaggero, Enrico Rizzuto

Predicting life cycle cost of a modular frigates fleet

Alfonso Barbato, Alessandro Bonvicini

Retrofit: from selection of technologies to regulatory framework

Raimonds Aronietis, Koos Frouws, Hilde Meersman, Christa Sys, Eddy Van De Voorde, Thierry Vanelander

Fostering sustainable maritime transport within the EU-Work Status At The European Sustainable Shipping Forum, ESSF

Panos Yannoulis

LNG as ship fuel: the reasons of a choice

Ernesto Fasano

16.00 – Coffee Break

Maritime Economics & Logistics

Time: 16.30 – 18.00

Chairperson: Alessandro Panaro, Head of Maritime and Mediterranean Economy, SRM, Italy

Consequences of applying a bunker adjustment factor

Hilde Meersman, Yasmine Rashed, Christa Sys, Eddy Van De Voorde, Thierry Vanelanders

The procurement challenges surrounding the acquisition of high-speed military and government boats in the 21st century

Bob MacDonald

A preliminary approach for establishing a new toll calculation method for transiting the Suez Canal oil tankers

Maged Abdel Naby, Adel Banawan

Analysis of the handling capacity of liquid cargo terminals using the Awesim modeling program

Özkan Uğurlu, Umut Yıldırım, Ercan Yüksekıldız, Serdar Yıldız

Forecasting model of port cargo handling capacity, a case study: Trabzon, Samsun, Rize and Hopa ports

Ercan Yüksekıldız, Muhammet Boran, Özkan Uğurlu, Umut Yıldırım, Serdar Yıldız

A value chain analysis of emerging maritime technology clusters in Nigeria

Chinedum Onyemechi, Abiodun Sule, Chinemerem Igboanusì

Wednesday, 24TH June 2015

Time: 14.00 – 18.00

Room A 1.1

Human Factor & Comfort On Board

Time: 14.00 – 16.00

Chairperson: Enrico Rizzuto, University of Genoa, Italy

Crew – An effective approach to scheme of complement and workload estimation on military Ships

Andrea Lommi, Pierpaolo Rube

Computerized assessment of seafarers' functional status on board

Giedrius Varoneckas, Arvydas Martinkenas, Jurgita Andruskiene, Albinas Stankus, Lina Mazrimaite, Aurelija Livens

Numerical evaluation of reverberation time in public spaces on cruise ships

Francesco De Lorenzo, Daniele Russi

Experimental investigation on the damping coefficient of laminated glass for large yachts windows

Lisa Gragnani, Angelo Tonelli, Dario Boote, Tatiana Pais

High-speed boats – How to design cockpits, consoles and dashboards for better control, safety and comfort

Johan Ullman

Human performance at sea: stress management for efficient shipping - SOS project

Taner Albayrak, Davide Stasi

16.00 – Coffee Break

Aesthetic & Interior Design of Passenger Ships

Time: 16.30 – 18.00

Chairperson: Silvia Piardi, Politecnico di Milano

A praise of slowness: “Slow Cruising” opens new frontiers in yacht design interiors

Massimo Musio Sale, Valentina Solera

Passenger cabins on cruise ships: modularity, design and comfort

Maria Carola Morozzo Della Rocca

The liners: evolution and formal typology

Enrico Tommaso Carassale

Public areas of cruise ships

Mario Ivan Zignego

Exercises in style

Silvia Piardi, Angelica Paiva Ponzio

Thursday, 25TH June 2015

Time: 9.00 – 12.30

Room B 1.5

Ship Energy Efficiency I

Time: 09.00 – 10.30

Chairperson: Alberto Gauzolino, Italian Navy

Calculation of optimum trim based on bow and stern shape functions

Tom Dinham Peren

Energy efficient operation of bulk carriers by trim optimization

Moustafa Mohammed Moustafa, Waleed Yehia Ali, Arwa Wafiq Hussain

Contemporary model testing to comply with the IMO EEDI verification process

Anton Minchev

Monitoring, analyzing and improving ship propulsive performances: a support system to ship management in an energy efficiency perspective

Giovanni Cusano, Mauro Garbarino, Stefano Qualich, Giuseppe Stranieri

10.30 – Coffee Break

Ship Energy Efficiency II

Time: 11.00 – 12.30

Chairperson: Alberto Gauzolino, Italian Navy

Marine fuel quality, value and challenges for 2015 and beyond

Ian Crutchley

Identifying added shaft power in weather from voyage analysis of a RORO carrier

Angus Webb, Dominic Hudson

Ship performances forecasting at the Mediterranean scale: evaluation of the impact of MeteOcean forecasts on fuel savings for energy efficiency and weather routing

Andrea Orlandi, Luca Rovai, Valerio Capecci, Stefano Romanelli, Riccardo Benedetti, Andrea Coraddu, Diego Villa

12.30 Buffet Lunch

Thursday, 25TH June 2015

Time: 9.00 – 12.30

Room B 1.1

Seakeeping, Stability & Manoeuvrability I

Time: 09.30 – 10.30

Chairperson: Alberto Francescutto, University of Trieste

The effect of forward speed on nonlinear ship motion responses

Olgun Guven Hizir, Zhiming Yuan, Atilla Incecik, Osman Turan

Prediction tool for preliminary design assessment of manoeuvring characteristics of a twin screw displacement yacht

Roberto Tonelli, Enrico Della Valentina, Frans Quadvlieg

Prediction of dynamic loads in towing systems

Radoslav Nabergoj, Loris Cok, Emanuele Putorti

10.30 – Coffee Break

Seakeeping, Stability & Manoeuvrability II

Time: 11.00 – 12.30

Chairperson: Alberto Francescutto, University of Trieste

A numerical investigation of the squat and resistance of ships advancing through a canal using CFD

Tahsin Tezdogan, Atilla Incecik, Osman Turan

Numerical prediction of hull force for low velocity manoeuvring

Dario Bruzzone, Danilo Ruscelli, Diego Villa, Michele Viviani

Random decrement method: ship roll damping identification based on response in a seaway

Andrea Del Guzzo, Francesco Di Tomaso, Irene Renzi, Federico Gaggiotti, Roberto Bruschi

12.30 - Buffet Lunch

13.30 - Social Event & Gala Dinner

Friday, 26TH June 2015

Time: 9.00 – 16.30

Room B 1.1

Numerical & Experimental Hydrodynamics I

Time: 09.00 – 10.30

Chairperson: Alexandre Pustoshny, Krylov Institute, Russia

Repeatability estimation of torque and thrust results in open water tests as a function of the Reynolds number

Alessandro Moriconi, Andrea Mancini

Application of uncertainty analysis for measurement of added resistance in regular short waves

Naoto Sogihara, Masaru Tsujimoto, Yoshikazu Kasahara, Ryohei Fukasawa, Tatsuya Hamada

Numerical study of unsteady breaking waves induced by a submerged hydrofoil at steady forward speed

Giorgio Contento, Guido Lupieri, Hrvoje Jasak, Vuko Vukčević

MWM: a 35 years wind & wave high resolution hindcast dataset and an operational forecast service for the Mediterranean sea

Luca Donatini, Guido Lupieri, Giorgio Contento, Andrea Pedroncini, Luis Alberto Cusati, Andrea Crosta

10.30 – Coffee Break

Numerical & Experimental Hydrodynamics II

Time: 11.00 – 13.00

Chairperson: Alexandre Pustoshny, Krylov Institute, Russia

Resistance and propulsion of an icebreaking vessel in ultra-shallow water

Giorgio Trincas, Silvio Stente, Giuseppe Repole

Virtual PMM and free running manoeuvring predictions of a submarine by CFD

Giulio Dubbioso, Stefano Zaghi, Riccardo Brogna, Maurizio Cannarozzo

Nonlinear free surface potential flow simulations for hulls with a transom stern operating in dry and wet conditions

Andrea Mola, Luca Heltai, Antonio De Simone

Viscous flow computations for a large water tunnel

Ahmet Gürkan, Gürbüz Bilici, Uğur Oral Ünal

Hydrodynamic analysis of a catamaran in calm water and in waves

Teresa Castiglione, Sergio Bova

Numerical and experimental investigation on the wave-wave interaction in breaking and non-breaking focusing waves

Guido Lupieri, Thomas Puzzer, Giorgio Contento, Luca Donatini, Lorenzo Cappiotti

Friday, 26TH June 2015

Time: 9.00 – 16.30

Room B 1.1

Numerical & Experimental Hydrodynamics III

Time: 14.00 – 16.30

Chairperson: Marcelo Santos Neves, Federal University of Rio de Janeiro, Brazil

Fluid-structure interactions during the high speed water entry of a plate

Alessandro Iafrati

Study and experiments on the hull resistance reduction by air ventilation in calm water for semi-displacement hulls

Andrea Agrusta, Dario Bruzzone, Igor Zotti

An open source framework for CFD optimization: the case of sailing yacht daggerboards

Giovanni Bailardi, Joel E. Guerrero

Determination of VDV and MSI for modern planing craft

Ermina Begovic, Silvia Pennino, Vincenzo Piscopo, Antonio Scamardella

Friday, 26TH June 2015

Time: 9.00 – 16.30

Room B 1.5

Ship Propulsion & Machinery I

Time: 09.00 – 10.30

Chairperson: Gian Piero Repetti, Vulkan Italia

Advancement in propulsion technology

Elias Boletis, Albert Drost, Norbert Bulten

Diesel engines operating in Artic and Tropic fields

Paolo Calcinotto, Mathias Björklund

Evaluation of the efficiency of a vibrating propulsion system for marine vessels, Part I: Physical mathematical models

Roberto Muscia

Evaluation of the efficiency of a vibrating propulsion system for marine vessels, Part II: Integration of motion equations and performances

Roberto Muscia

10.30 – Coffee Break

Ship Propulsion & Machinery II

Time: 11.00 – 13.00

Chairperson: Gian Piero Repetti, Vulkan Italia

A high safety and efficiency rudder actuation based on servo-controlled fluidic muscles

Enrico Ravina, Francesca Bertesago

Transparency within automated engine control systems: the case of the Savannah Express

Monica Lundh, Scott N. MacKinnon, Yemao Man

Cold flow simulation of an internal combustion engines with canted valves for Tug boats using hybrid approach

George Martins, Ovidiu Sorin Cupsa, Nicolae Buzbuchi

Artificial air cavity as energy saving technology

Alexander Pustoshny, Andrey Sverchkov, Loris Cok, Giorgio Trincas, Pierluigi Busetto

Comparison of waste heat recovery systems for the refitting of a cruise ferry

Giovanni Benvenuto, Ugo Campora, Michele Laviola, Raphael Zaccone

13.00 Buffet Lunch

Friday, 26TH June 2015

Time: 9.00 – 16.30

Room B 1.5

Structural Design

Time: 14.00 – 16.30

Chairperson: Eugenio Guglielmino, University of Messina

Experimental investigation of FCAW-G weldments of HSLA AH40-FCA (Fatigue Crack Arrestor) steel, used in marine applications

Marios Kazasidis, Stavros Chionopoulos, Dimitrios Pantelis

Influence of sea state models on calculated naval vessel stress spectra

Ian Thompson

Fatigue strength analysis of longitudinal bulkheads of passenger ships with large openings

Giovanni Risso, Carlo Cau, Yordan Garbatov, Carlos Guedes Soares

Numerical assessment of fatigue crack growth in high stress concentration areas of an Aframax tanker, using AH36 and HSLA steels

Elias V. Chatzidouros, Dimitris I. Pantelis

Low-cycle fatigue life prediction of fillet-welded joints in ship details

Pasqualino Corigliano, Vincenzo Crupi, Wolfgang Fricke, Eugenio Guglielmino

Friday, 26TH June 2015

Time: 9.00 – 16.30

Room A 1.1

Ship Management, Safety & Security I

Time: 09.00 – 10.30

Chairperson: Maurizio D'Amico, Società d'Amico di Navigazione

Distribution and display of maritime safety information in an E-Navigation context

Thomas Porathe, Mads Bentzen Billesø, Ole Borup, Peder Pedersen

The evolution of safety management on board cruise ships

Sandro Stefani, Vittorio De Val

Biometrics for electronic mustering and other emergencies

Sergio Bisiani, Daniele Protti

10.30 Coffee Break

Ship Management, Safety & Security II

Time: 11.00 – 13.00

Chairperson: Maurizio D'Amico, Società d'Amico di Navigazione

Statistic of still water bending moment of damaged Suezmax oil tanker

Branka Bužančić Primorac, Vedran Slapničar, Ivan Munić, Vjekoslav Grubišić, Maro Ćorak, Joško Parunov

Cost-utility analysis of ballast water treatment system market

Vivart Kapoor

Innovative tools for the advanced evacuation analysis of passenger ships

Vittorio Bucci, Alberto Marinò, Giorgio Trincas, Giovanni Zanutto

Self-moving units for inspection tasks of marine structures and plants

Enrico Ravina

Command and control of unmanned vessels: keeping shore based operators in-the-loop

Scott N. Mackinnon, Yemao Man, Monica Lundh, Thomas Porathe

13.00 Buffet Lunch

Friday, 26TH June 2015

Time: 9.00 – 16.30

Room A 1.1

Fishing Vessel

Time: 14.00 – 15.00

Chairperson: Gaetano Messina, ATENA-Marche

Retrofit of a 42 m length trawler propulsive system

Sophie Coache, Jean Marc Laurens

Reverse engineering techniques for trawler hull 3D modelling and energy efficiency evaluation

Anna Nora Tassetti, Michele Martelli, Gabriele Buglioni

An economical onboard liquid ice system for fishing vessels by recovery of waste energy

Claudio Fontana, Vassilios K. Zagkas

Inland Navigation

Time: 15.00 – 16.30

Chairperson: Marcello Coppola, Navigazione Laghi

Overview of European inland navigation

Dino Telesca

2004-2014 ten years of changing in the project of passenger ferries on Italian lakes, due to the 2006/87/CE and consequent rules

Valerio Ruggiero

Dry-dock hull inspection of Nile cruisers

Arwa. W. Hussein, Moustafa Mohammed Moustafa, M. T.Elsherbiny

The new hybrid small passenger vessel for the Venice lagoon

Vittorio Bucci, Alberto Marinò, Andrea Businaro

NAV 2015 Organization

ORGANISING COMMITTEE

- Bruno Della Loggia (ATENA President) – Chairman
- Marco Altosole (University of Genoa) – Conference Secretary
- Andrea Ratti (Technical University of Milan) – Local Organizer
- Pietro Canepa (ATENA Genoa branch) – Conference Accountant
- Dino Telesca (ATENA – Inland Navigation Group)
- Enrico Rizzuto (University of Genoa)
- Enrico Ravina (University of Genoa)
- Silvia Donnarumma (University of Genoa)
- Fabio Fossati (Technical University of Milan)

ABOUT NAV CONFERENCES

The Conferences were initiated in 1974 as “Scientific Conference of Gruppo Automazione Navale e Problemi delle Grandi Navi”, to be held every two years under the patronage of CETENA and the Italian CNR - National Research Council. In 1980, CETENA and ATENA entered into a co-operation agreement and the name of the Conference was changed to NAV. This arrangement was maintained until 1994, after when the frequency of meetings was changed to once every three years. The focus remained on convening a forum for the maritime scientific and technical community all over the world. NAV 2015 in Lecco is the 18th Conference, previous ones having been held all over Italy, specifically in: Rome (1974), Naples (1976), Trieste (1978), Genoa (1980), Naples (1982), Venice (1984), Palermo (1986), Trieste (1988), Ancona (1990), Genoa (1992), Rome (1994), Sorrento (1997), Venice (2000), Palermo (2003), Genoa (2006), Messina (2009), Naples (2012).

Special thanks go to the Academic Authorities, Industry, Technical and Professional Offices whose generous contributions made this event possible.

INTERNATIONAL SCIENTIFIC COMMITTEE

An international committee, chaired by Prof. Alberto Francescutto from 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 paper reviewers. Then, the selected papers were subject to the final review and recommendations from the reviewers. The high scientific value of the papers presented to NAV 2015 has therefore been amply assured.

ABOUT ATENA

ATENA, the Italian Association of Naval Technology was founded in 1948 as cultural non-profit organization by the Italian College of Naval and Mechanical Engineers in Genoa. 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, magazines, newspapers, websites, social media, etc.) as well as through the organization of congresses, conferences, workshops and technical committees for the study of specific problems and implementation of specific programs. Its members contribute professionally to design, construction and operation of all kinds of marine craft, with a focus on transport safety and protection of marine environment. Currently ATENA has about 700 members, including engineers, teachers, researchers, ship owners, classification societies, etc. with a presence in almost all Italian regions that have a significant maritime sector. All persons interested in participating in ATENA's activities and supporting the Association's objective can apply to join as members. Through the spirit of collegiality and friendship, ATENA works to keep alive the multidisciplinary nature of marine knowledge.

Main sponsors



Official Sponsors

FINCANTIERI



MACGREGOR



becker marine systems

MC
Management Criteria Srl

Conference Partners



Orizzonte Sistemi Navali



VULKAN
COUPLINGS

VULKAN
DRIVE TECH

VULKAN
LOKRING

Friendly Partner

