



TECHNOLOGY AND SCIENCE FOR THE SHIPS OF THE FUTURE



**Proceedings of NAV 2018:
19th International Conference on Ship & Maritime Research**

**Editors: Alberto Marinò
Vittorio Bucci**

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Proceedings of NAV 2018: 19th International Conference on Ship
& Maritime Research

Edited by

Alberto Marinò

University of Trieste, Italy

and

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ATENA, Italy

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This book and the attached pen drive cover the proceedings of *NAV 2018*, the *19th International Conference on Ships & Maritime Research*, held in Trieste (Italy) on June 20th - 22th 2018, organized by ATENA (Associazione Italiana di Tecnica Navale), with the collaboration of the University of Trieste and the Maritime Technology Cluster FVG, under the patronage of the Italian Navy, the Regione Autonoma Friuli Venezia Giulia, the Municipality of Trieste and the Port Authority of Trieste.

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Preface

About NAV

The first Conference took place in 1974 as “Convegno Scientifico del Gruppo Automazione Navale e Problemi delle Grandi Navi” (Scientific Conference of Marine Automation Group and Large Vessels Issues), to be held every two years under the patronage of Technical Naval studies Centre (CETENA) and Italian National Research Council (CNR).

In 1984, the cooperation between CETENA and Marine Technical Association (ATENA) led to rename the conference as NAV spreading the topics also to purely technical field, originally covered by ATENA national conferences. Since 1994 the NAV conference is held every three years. As the most important Italian forum for scientific and technical maritime community, it attracts specialists from all over the world.

The 19th Conference (NAV 2018) is finally back in Trieste, after 30 years of absence. For this purpose, a Committee of Honor has been established, including personalities representative of Italian maritime excellence. An international Scientific Committee, composed of members of international academic institutions and relevant industry sectors, ensures the scientific quality of the conference under the guidance of the chairman, Professor Alberto Marinò (University of Trieste).

The previous editions: 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), Lecco (2015).

About ATENA

In 1947 ATENA (Associazione Italiana di Tecnica Navale) was established in Genoa under the initiative of a group of Italian naval architects and marine engineers. The principal aim was to extend the initiatives of the Collegio degli Ingegneri Navali e Meccanici in such a way to stimulate the discussion on ship design and maritime industry between the Italian specialists in this sector.

In February 1948 the first Technical National Conference was held, collecting contributions from the most representative personalities of the national maritime sector, including professional naval architects and marine engineers, professors, researchers, shipowners and insurers.

Since ATENA's founding, its members have been providing high level contributions to research, ship design & construction and the shipping industry. Besides, a primary focus is given to other actual and relevant topics such as maritime safety and environmental issues.

As part of the maritime industry acting in a global market, ATENA is also spreading its vision worldwide, opening up its conferences and events also to international professionals.

Conference Topics

Guest Country

- The Netherlands

Topics

- Comfort on board
- Conceptual & practical ship design
- Deepsea mining and marine robotics
- Environment protection, electric system & ship energy efficiency
- Marine renewable energy
- Naval ships design & technology
- Numerical & experimental hydrodynamics
- Offshore vessels design & engineering
- Safety & security
- Ship digitalization, unmanned vehicle & cyber security
- Ship propulsion, machinery & systems
- Stability, seakeeping & maneuverability
- Structural design & production technology
- Yacht, pleasure craft design & inland waterway vessels

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