

CONFERENCE PRESENTATION.....	3
SESSIONS AND WORKSHOPS	5
ORGANIZER.....	7
ORGANIZING COMMITTEE	9
LOCAL ORGANIZING COMMITTEE.....	10
SCIENTIFIC COMMITTEE	11
PARTNERS.....	13
WITH THE PATRONAGE OF.....	13
DIAMOND SPONSORS	15
PLATINUM SPONSORS	17
SILVER SPONSORS	19
BRONZE SPONSORS	21
PROGRAM.....	23



VULCANIA
TRIEST

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 conferences as NAV spreading the topics also to purely technical field, originally covered by ATENA national conferences. Since 1994 the NAV conferences is held every three years being the most important Italian forum for scientific and technical maritime community, attracting also specialists from all around the world.

The 21st Conference (NAV 2025) is return in Messina, after 15 years. An international scientific Committee, composed by members of international academic institutions and relevant industry sectors, ensures the scientific quality of the conference under the guidance of the chairman, Professor Vincenzo Crupi (University of Messina).

The previous editions: Rome (1974), Naples (1976), Trieste (1978), Genova (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), Trieste (2018), Genoa (2022).



Sessions and workshops

Paper Sessions

- Ship Design
- Hydrodynamics
- Ship Propulsion, Machinery and Systems
- Safety and Security
- Ship Structures and Materials
- Offshore and Underwater Technologies
- Naval Ships and Submarines
- Green and Smart Ships for Sustainable Navigation
- Marine Renewable Energy and Resources
- Comfort on Board
- Electrical Systems and Automation
- Ship Digitalization and Autonomous Vehicles
- Yacht Design
- Inland Navigation

Workshops (WS)

WS01	Digitalization and new Edge-Cloud technologies in the maritime sector
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ATENA – ASSOCIAZIONE NAZIONALE ITALIANA DI TECNICA NAVALE

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 incentive the discussion on ship design and maritime industry between the Italian specialist 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 foundation, its members are providing high-level contributions to research, ship design & construction and shipping industry. Besides, a primary focus is given to other actual and relevant topics such as maritime safety and environmental issues.

Being the maritime industry acting in a global market, ATENA is also spreading his vision worldwide, opening his conferences and events also to international professionals.



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Conference Accountant	Ernesto FASANO University of Naples Federico II – ATENA Treasurer
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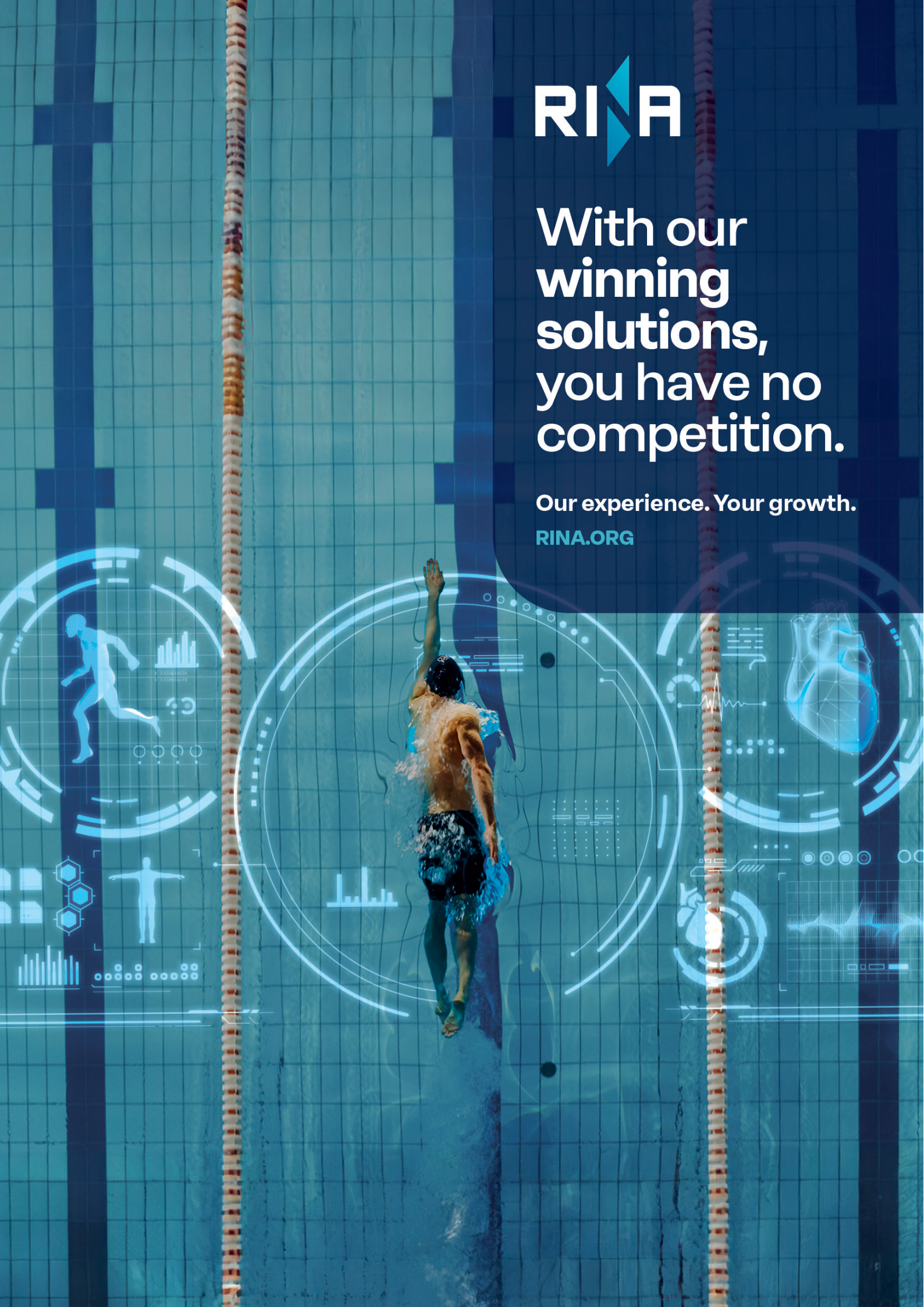




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Program

18 JUNE	WEDNESDAY - DAY 1		09:00 - 18:30
	Registration		09:00 - 10:00
	Memory of Prof. Eugenio Guglielmino		10:00 – 10:30
	Opening Ceremony		10:30 - 12:30
	Lunch		12:30 - 13:30
	Invited Talk 1		13:30 - 14:00
	Conference Session A		14:00 - 16:00
	Conference Session B		14:00 - 16:00
	Conference Session C		14:00 - 16:00
	Workshop		14:00 - 16:00
	Coffee Break		16:00 - 16:30
	Conference Session A		16:30 - 18:30
	Conference Session B		16:30 - 18:30
	Conference Session C		16:30 - 18:30

19 JUNE	THURSDAY DAY 2		09:00 - 17:30
	Accompanying tour		09:00 - 13:00
	Conference Session A		08:30 - 10:30
	Conference Session B		08:30 - 10:30
	Conference Session C		08:30 - 10:30
	Coffee Break		10:30 - 11:00
	Invited Speech		11:00 - 11:30
	Conference Session A		11:30 - 13:30
	Conference Session B		11:30 - 13:30
	Conference Session C		11:30 - 13:30
	Lunch		13:30 - 14:30
	Conference Session A		14:30 - 16:30
	Conference Session B		14:30 - 16:30
	Conference Session C		14:30 - 16:30
	Coffee Break		16:30 - 17:00
	Conference Session A		17:00 - 18:30
	Conference Session B		17:00 - 18:30
	Conference Session C		17:00 - 18:30
	Gala Dinner		21:00

20 JUNE	FRIDAY DAY 3		09:00-18:30
	Invited Speech		09:00 - 09:30
	Conference Session A		09:30 - 11:00
	Conference Session B		09:30 - 11:00
	Coffee Break		11:00 - 11:30
	Conference Session A		11:30 - 12:30
	Conference Session B		11:30 - 12:30
	Closing Ceremony		12:30 - 13:30
	Lunch		13:30 - 14:30
	Social Tour Taormina		14:30 - 19:00



WEDNESDAY, JUNE 18th 2025

09:00 – 18:30

09:00 - 10:00	Registration	
10:00 – 10:30	Memory of Prof. Eugenio Guglielmino	
10:30 - 12:30	OPENING CEREMONY	MEETING ROOM: Aula Magna
12:30 - 13:30	Lunch	
13:30 - 14:00	Invited Talk 1: Yordan GARBATOV	MEETING ROOM: Aula Magna

14:00 - 16:00	CONFERENCE SESSION A	MEETING ROOM: Aula Magna CHAIRMAN: YORDAN GARBATOV
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SHIP STRUCTURES AND MATERIALS 1

	Innovative Design and Fabrication Environment for Robotic Additive Manufacturing of Sustainable Sandwich Structures
ID61	S. SCATTAREGGIA MARCHESE, P. GIORGIANNI, Y. GARBATOV, V. CRUPI, G. EPASTO, S. SCATTAREGGIA MARCHESE
ID12	Stress Concentration in Marine Crossing Cutouts via IsoGeometric Analysis
	C. CHIANESE, M. ACANFORA, M. ALTOSOLE
ID110	Experimental Techniques for the Assessment of the Mechanical Behaviour of HDPE Used in Boat Building
	G. BRANDO, S. BERTAGNA, V. CRUPI, F. DISTEFANO, G. EPASTO, A. MARINO
ID45	Modal Analysis of a Catamaran Cockpit: Numerical Models, Experimental Tests and Sea Trails
	G. BRIGUGLIO, V. CRUPI, F. DISTEFANO, F. FRENI, R. MONTANINI
ID3	From International Standards to Classification Rules: Application on Board Ships of Adhesive Non-Structural Fasteners
	G. ROGNONI, G. KYAW OO D'AMORE, E. BROCCO, L. STEFANUTTI, M. BIOT
ID79	Efficient Integration of Machine Learning and Optimization Techniques into Passenger Ships Structural Design
	C. BUSIELLO, M. SICCHIERO, M. SIDARI, L. FABRIS, G. ROZZA

14:00 - 16:00	CONFERENCE SESSION B	MEETING ROOM: Aula B CHAIRMAN: ANTONIO SCAMARDELLA
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HYDRODYNAMICS 1

ID6	Experimental Study of un-Stationary Tip Vortex Cavitation
	G. FRANZOSI, A. A. ABBASI, M. VIVIANI, G. TANI
ID8	Development of a CFD Based Submarine Manoeuvrability Prediction Code
	L. BERTÈ, B. PIAGGIO, L. SCOTTO, S. BECCHETTI, M. VIVIANI, D. VILLA
ID65	Deriving of a numerical propulsion and steering model for a cycloidal propeller
	T. GORNICZ, V. FERRARI, D. MILAZZO, A. MASLOWSKA, A. K. LIDTKE
ID36	Development and Application of a Numerical Model for Ship Manoeuvring in Regular and Irregular Waves
	M. ACANFORA, S. PENNINO, A. SCAMARDELLA

ID138	High-speed Craft with Double Interceptor System in Calm Water: URANS Solution <i>F. ROSHAN, A. DASHTIMANESH, F. DE LUCA, S. MANCINI</i>	
ID139	Performance Prediction of Planing Catamarans Using Mathematical and CFD Models <i>R. NIAZMAND BILANDI, A. DASHTIMANESH, S. TAVAKOLI, S. MANCINI</i>	
14:00 - 15:40	WORKSHOP	MEETING ROOM: Aula C CHAIRMAN: ALESSANDRO MACCARI
WS01	DIGITALIZATION AND NEW EDGE-CLOUD TECHNOLOGIES IN THE MARITIME SECTOR	
ID103	The Fincantieri Digital Ecosystem: a Comprehensive Approach to Ship Digitalization <i>S. CALLEGARI, S. IANNACE</i>	
ID94	Digital Twin Approach for Ship Energy Management <i>A. BONVICINI, D. CANGELOSI, R. INGARGIOLA, A. MARCHESE, G. PREVITI</i>	
ID85	Maritime Cyber Security Platform (MCSP) <i>G. LAURENZA, R. TACCONI, Marco DRI, S. LANDUCCI, D. ALI</i>	
ID83	Fincantieri Shipyards Digital Twin Model <i>T. PILUTTI NAMER, M. TORNIELLI</i>	
ID82	Smart Robotics in Shipbuilding Process <i>C. DENTESANO</i>	
ID84	A Modular Control Room for Smart Port as Event-Driven DSS <i>F. ACANFORA, D. FRISONI, F. SPARACI</i>	
15:40 - 16:00	ROUND TABLE	
16:00 - 16:30	Coffee Break	



16:30 - 18:30

CONFERENCE SESSION A

MEETING ROOM: Aula Magna
CHAIRMAN: SHIN HYUNG RHEE

SHIP DESIGN 1

ID140

NAV 2025: The ETAProp concept, a New Solution that Optimizes the Relationships Between Hull-Propeller and Rudder

C. BUCCINI, G. CAPRINO

ID50

Experimental Investigation of Free Surface Effects on Propulsion Performance of a Propeller Operating near the Free Surface

J. HA, S. H. RHEE

ID18

An Overview of the Shipbuilding Labour Market: the LeaderSHIP EU Project

T. PAIS, G. VERGASSOLA, M. GAIOTTI, C. M. RIZZO, J. VALTANEN, S. KIVELÄ, W. LENARDUZZI, M. HAUNINEN, A.H. LAOT, P. P. GILLES, M. EL FAZIKI, M. NECHITA, G. POPESCU, J. THORMODSÆTER, K. SEVEREIDE, A. MENDIBIL, F. MIGUELEZ, J. A. CAMPOS, J. SANCHEX-BEASKOETXEA, D. BOULLOSA-FALCES, A. ROSSI

ID132

Surrogate Models for Propulsive Performance in the Feasibility Study of Cruise Ships

A. BRUNELLO, F. MAURO, L. BRAIDOTTI, V. BUCCI

ID99

Full-Scale RANS Validation of Multi-Fidelity Bow Optimization for a RoRo Cargo Ship

A. DEL BUONO, R. BROGLIA, A. SERANI, M. DIEZ, A. MAIONE, C. CERVICATO

ID9

Preliminary Design of a Dual Propulsive/Regenerative Device for Sail Ships: SAIL-POD by Velettrica

R. BAFFIGO, A. LIDOZZI, M. DI BENEDETTO, D. CALCAGNI, A. MANCINI

16:30 - 18:30

CONFERENCE SESSION B

MEETING ROOM: Aula B
CHAIRMAN: MICHELE VIVIANI

HYDRODYNAMICS 2

ID1

Analysis of the Virtual Towing Tank Accuracy by Means of a new EFD Database

S. BOZZO, M. FERRANDO, D. VILLA

ID87

A Comprehensive Study on the Influence of Scale and Draft Variations on Form Factor Using a Combined EFD/CFD Approach

M. ARGYROS, S. MANCINI, K. B. KORKMAZ, A. ESLAMDOOST

ID108

Scale Effect Assessment on Trim Optimization Study

M. DE CARLINI, S. MANCINI, V. SORRENTINO, M. ALTOSOLE, A. D'AMBRA, D. BOCCHETTI

ID57

A B-Spline Rankine Panel Method for the Double-Body Flow Problem Solution for Time Domain Seakeeping Applications

F. SOARDI, G. VERNENGO

ID63

A numerical Overview of the Influence of Cavitation on Cycloidal Propeller Performances

N. GUANO, S. DONNARUMMA, S. GAGGERO

ID81

Supersilent Propellers for New Generation Cruise Vessels

G. LAVINI, G. GUSTIN, A. MARINO, E. TAGLIAMONTE

16:30 - 19:00

CONFERENCE SESSION C

MEETING ROOM: Aula C
CHAIRMAN: VITTORIO BUCCI

K-SHIP PRESENTATION

GREEN AND SMART SHIPS FOR SUSTAINABLE NAVIGATION 1

ID88 **Impact of New Environmental Rules on the Fuel and Emissions Costs of a Mediterranean Cruise**

L. BRAIDOTTI, S. UTZERI, E. DEL PIERO, A. MARINÒ

ID5 **A CFD Based Method to Assess Underwater Venting of Methanol and Nitrogen for Yachts**

S. RASORI, M. FALOSI, F. BOLLENTINI, F. TOCCHI, E. CANEPA, A. TWERDA

ID73 **Technical Challenges in the Adoption of HVO and FAME as Marine Fuels**

L. MICOLI, R. BUSSI, A. MACOCCO

ID78 **Vibro-Acoustic Simulations for Prediction of Underwater Radiated Noise from Onboard Machinery**

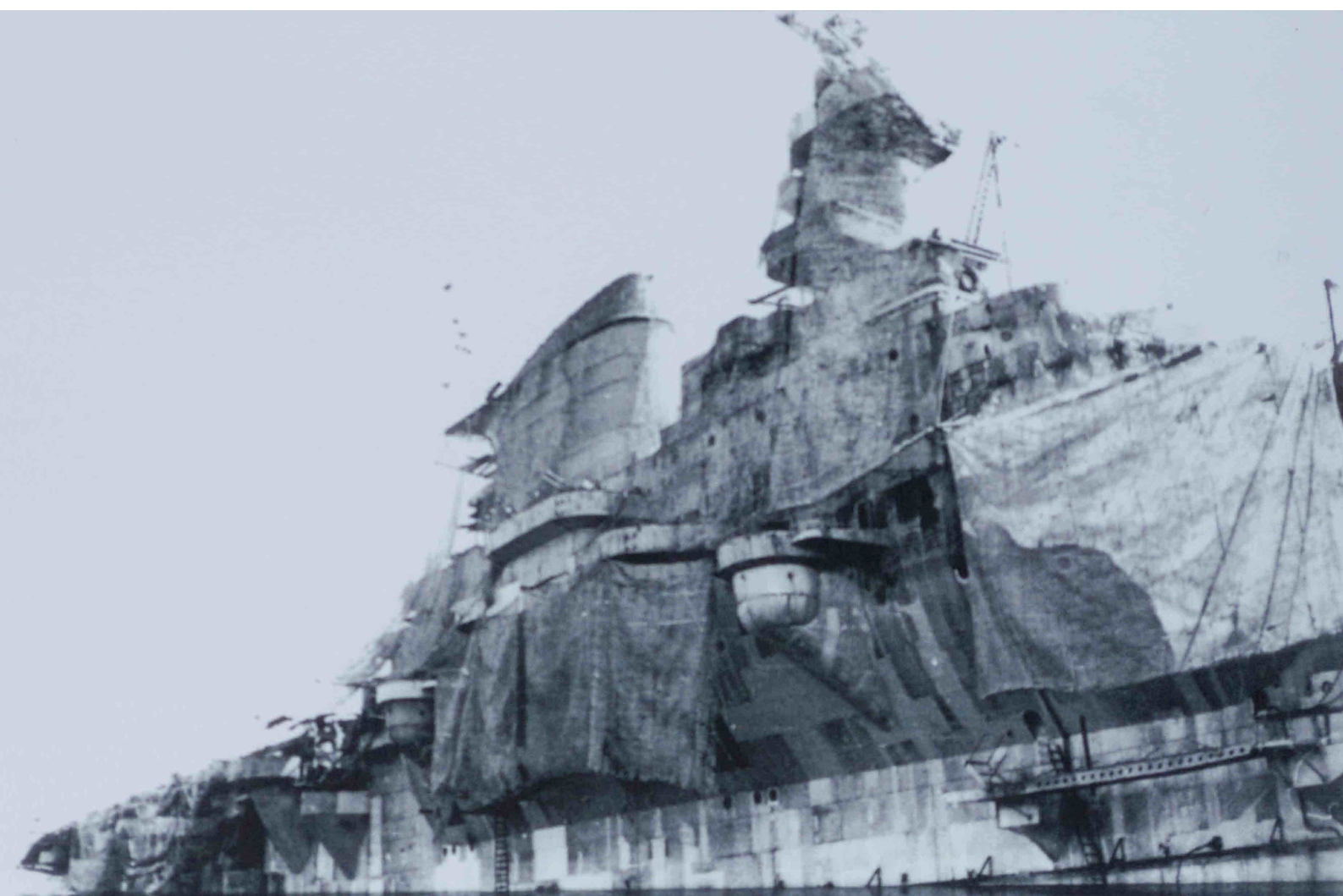
A. IULIANO, F. CASUSCELLI, E. DE ANGELIS

ID102 **Hydrogen Powered Ferries in the Adriatic Sea: A Technical and Environmental Assessment**

R. DE SOUZA, F. DEL MONDO, E. PADOANO, R. TACCANI, F. REZZANTE, K. ZURIC

ID133 **An Integrated Analysis of Innovative Ammonia-Fuelled Technologies for Large Passenger Vessels**

S. PICCARDO, M. RIVAROLO, D. CLEMATIS, A. IRACE, D. CAZZOLA



THURSDAY, JUNE 19th 2025

08:30 – 21:00

08:30 - 13:00 **SOCIAL EVENT FOR ACCOMPANYING PERSON** SCILLA

08:30 - 10:30 **CONFERENCE SESSION A** **MEETING ROOM:** Aula Magna
CHAIRMAN: CLAUDIO LUGNI

OFFSHORE AND UNDERWATER TECHNOLOGIES

ID106 **Experimental Proof-of-Concept of Passive Bio-Inspired Sensing Strategy for Autonomous Underwater Vehicles**

C. POTTER, M. GRECO, R. GARAT, C. LUGNI

ID62 **Advantages and Disadvantages of Different Solvers for Preliminary DP Capability and Operability Predictions**

F. MAURO, G. ROSANO

ID104 **A Modular Approach for Defining the Technical Characteristics of Offshore Support Vessels from a Safety Perspective**

P. SOTIRALIS, A. STOURAITI, M. ANNETIS, N. P. VENTIKOS

ID59 **Evaluation of the Effectiveness of Using Buckle Arrestors to Prevent Subsea Pipeline Propagation Buckling in West Africa Fields**

S. K. WAYOE

ID35 **An investment cost estimation model for Gyroscopic Wave Energy Conversion systems**

G. BOCCHETTA, A. C. CAPUTO

ID95 **Towards Optimized Maritime Energy: Focus on an Energy Analysis and Management to Replace Conventional Power Systems with Hydrogen Solutions**

S. MALABOTTI, T. CHINESE, M. ZANELLI, A. CARRONI, M. CAPOBIANCO, N. ZULIANI, D. PIVETTA, M. BOGAR, R. TACCANI, I. LAVAGNINI, F. REZZANTE

08:30 - 10:30 **CONFERENCE SESSION B** **MEETING ROOM:** Aula B
CHAIRMAN: ALESSANDRO IAFRATI

GREEN AND SMART SHIPS FOR SUSTAINABLE NAVIGATION 2

ID44 **Innovative Deck Redesign for Dinghies: Advancing Electric Boat Efficiency and Sustainability**

C. CAMPESE, G. MINAK

ID33 **Analysis of Greenhouse Gas Emissions from Ships Visiting European Ports**

P. GEORGIEV, Y. GARBATOV, A. ANGELOV

ID20 **Development of an Exhaust Gas Cleaning System for Methanol-Fueled HT-PEM Fuel Cells for Sustainable Maritime Applications**

D. FLAGIELLO, F. DI NATALE, C. CAPASSO, F. SCAMARDELLA, L. MOCERINO

ID22 **Experimental Investigation on the Effects of Air-Lubrication in a Stepped Planing Hull**

A. MANCINI, M. DELL'ABATE DI FABIO, R. SCACCIA, F. CARTA, S. GRIZZI, M. FALCHI

ID23 **Lube oil fine filtration on board: protects environment and saves money**

E. PIANA

ID112 **Shipboard Photovoltaics Integration for Retrofitting Cargo Ships: a Case Study**
M. C. DI PIAZZA, M. PUCCI, G. RODONO', G. LA TONA, O. YUKSEL, V. SHAGAR, A. IAFRATI

08:30 - 10:30

CONFERENCE SESSION C

MEETING ROOM: Aula C
CHAIRMAN: VALERIO RUGGIERO

OFFSHORE AND UNDERWATER TECHNOLOGIES

ID38 **Safe Return to Port 2010-2025, the Revolution in Passenger Ship Design**
A. MACCARI

ID68 **A Prototypal GNSS Integrity Real-Time WebGIS Framework for Coastal Navigation**

M. LA GUARDIA, G. MUSSUMECI, A. ANGRISANO

ID67 **Advancing Safety and Sustainability in LNG-Powered Vessels: Insights from Romania's First LNG Bunkering and Commissioning**

F. BARBU, E. V. C. RUSU, L. C. STAN, C. UNGUREANU

ID77 **The Evolution of Technical and Operational Aspects of the Greek Owned Tugboats Fleet**

A. KOIMTZOGLOU, P. SOTIRALIS, K. LOUZIS, N. P. VENTIKOS

ID92 **Design Safety Assessment for Liquid Hydrogen Systems on Board Cruise Ships through a Risk Based Approach**

I. LAVAGNINI, F. REZZANTE, P. BUSETTO, F. CADENARO, M. ROIAZ, G. SANCIN, E. RUSSIAN

ID101 **Quantitative Risk Assessment: Frequency Analysis of a Liquid Hydrogen Tank Container Swap Operation on a Passenger Ship**

E. RUSSIAN, I. LAVAGNINI, F. REZZANTE, R. TACCANI

10:30 - 11:00

Coffee Break

11:00 - 11:30

Invited Talk 2: Marilena GRECO

MEETING ROOM: Aula Magna

11:30 - 13:30

CONFERENCE SESSION A

MEETING ROOM: Aula Magna
CHAIRMAN: MARILENA GRECO

MARINE RENEWABLE ENERGY AND RESOURCES

ID91 **Advancing Marine Renewable Energy in the Mediterranean Sea: Devices Development and De-Risking Strategies at MaRELab**

S. RUSSO, A. BARDAZZI, A. LUCARELLI, C. PILLOTON, M. GRECO, A. AZZELLINO, P. CONTESTABILE, D. VICINANZA, C. LUGNI

ID52 **Modeling Adaptive Technologies and Clean Fuels Towards Climate-Neutral Shipping**

P. KOUNDOURI, A. ALAMANOS, C. DERANIAN, O. NISIFOROU, J. A. GARCIA

ID51 **Digital Modelling of Cavitation Risk in Tidal Stream Turbines**

L. DODARO, F. SALVATORE, F. DI FELICE, N. KAUFMANN, R. STARZMANN

ID40 **Effects of Heaving Plate on the Dynamics of a Novel Floater Concept for FOWT**
L. D. L. AGUILAR, E. BRUNI, C. CHIANESE, G. SCHERL, D. VICINANZA, C. LUGNI

ID131	Hydrodynamic Analysis of a Floating Solar Island <i>C. LUVISETTO, A. LUCARELLI, F. PICCIONE, F. S. DI TOMMASO, C. LUGNI</i>
ID34	A Critical Review of Gyroscopic Wave Energy Conversion Systems <i>G. BOCCHETTA, A. C. CAPUTO, C. LUGNI</i>

11:30 - 13:30

CONFERENCE SESSION B

MEETING ROOM: Aula B
CHAIRMAN: PETAR GEORGIEV

GREEN AND SMART SHIPS FOR SUSTAINABLE NAVIGATION 3

ID113	Optimized Design of PTO/PTI Systems Driven by Operational Data for Cargo Ship Retrofitting: a Case Study <i>M. PUCCI, A. ACCETTA, M. C. DI PIAZZA, G. RODONO', O. YUKSEL, V. SHAGAR, A. IAFRATI</i>
ID49	Meeting Hydrogen Dynamic Demand for Onboard Applications Through a Liquid Organic Hydrogen Carrier <i>P. DELOGU, M. BUSETTO, D. BIONDA, M. C. TRIPOLI, F. FERRAZZI, A. MIO</i>
ID26	Environmental Product Declaration of Nautical Ropes: a Multi-Impact Category Analysis through Life Cycle Assessment <i>A. L. LA MONACA, A. BORDIGNON, S. PRICL, A. MIO</i>
ID121	Improving Ship Energy Efficiency Through Advanced HVAC Simulation Techniques <i>G. BARONE, A. BUONOMANO, G. DEL PAPA, C. FORZANO, G. F. GIUZIO, R. MAKI, A. PALOMBO, G. RUSSO, S. ZIZZANIA</i>
ID137	Use of Biofuels for Reducing OPEX and Air Emissions in the Maritime Sector <i>R. PITRUZZO, F. RIZZI</i>
ID55	Exploring a Hydrogen Solution for a Sustainable Maritime Power System of Yachts <i>R. RUSSO, T. COPPOLA, L. MICOLI</i>

11:30 - 13:30

CONFERENCE SESSION C

MEETING ROOM: Aula C
CHAIRMAN: ERNESTO FASANO

SHIP DESIGN 2

ID123	Uncertainties in the Evaluation of Geometrical Characteristics for Structural Evaluations <i>E. RIZZUTO, T. GAGGERO</i>
ID48	A stability in Waves Assessment of Self-Righting Vessels <i>N. PETACCO, V. RUGGIERO, P. GUALENÌ</i>
ID24	The CFD Potentiality on the AUV Hydrodynamic Design <i>D. VILLA, S. GAGGERO</i>
ID115	Poseidon: A Modular and Sustainable Approach to Maritime Passenger Transport <i>A. D. PERI, M. MUSIO-SALE</i>
ID116	Luxury Cruise Ship Design: Evolution and New Perspectives <i>M. I. ZIGNEGO, D. NICOLINI, E. PROIA</i>
ID117	An Innovative Approach to Sustainable Luxury Cruise Ship Design <i>A. D. PERI, M. MUSIO-SALE, L. GAO, M. CAVALLIN</i>

13:30 - 14:30

LUNCH BREAK

14:30 - 16:30

CONFERENCE SESSION A

MEETING ROOM: Aula Magna
CHAIRMAN: PAOLA GUALENI

SHIP DIGITALIZATION AND AUTONOMOUS VEHICLES 2

ID15

A Discussion About the Ship Digital Platform as a Step Forward for Digital Transformation in the Maritime Domain

G. PETKOVIC, N. PETACCO, A. ZINI, *P. GUALENI*

ID16

Digital Technologies can Modify the Decision-Making Process on Ship Bridges

M. MARTELLI, G. LONGO, E. RUSSO, R. ZACCONE

ID30

Coordinated Swarm Operations of Unmanned Surface Vehicles for Coastal Surveillance and Search and Rescue Missions

E. D'AMATO, *S. PENNINO*

ID7

Adaptive Rendezvous Planning Algorithm for Energy-Efficient Marine Operations

M. LAURENZA, G. PEPE, H. M. GOMES, W. J. CASAS

ID98

A Roadmap for the Safe Implementation of MASS: Aligning International Standards and Flag State Approvals

P. CORSI, S. JAKOVLEV, E. POCEVIČIUS

ID86

Understanding Risk in Maritime Encounters: Clustering RMSE-Based Expectancy Deviations in Course Alterations

Y. ALTAN, B. ADALI, C. BESIKTAS, K. BUYUKKIVANC, M. GIL,
O. KAZIMIERSKA, P. KRATA, J. MONTEWKA

14:30 - 16:30

CONFERENCE SESSION B

MEETING ROOM: Aula B
CHAIRMAN: ALBERTO MARINO'

NAVAL SHIPS AND SUBMARINES

ID11

Battery Energy Storage Systems for Emission Reduction: a Roadmap for Strategic Loading of Naval Ships

D. BELVISI, M. FIGARI

ID13

Concept Design and Subsystems Integration of a Multi Capability Drone Carrier Warship

D. BET, G. M. MARCILLI, L. MAGNONI, A. CANDIDO

ID14

Preliminary Analysis on the Integration of Directed Energy Systems in the Next Generation Surface Naval Vessels

M. GIANNELLA, P. BORGHESE, A. VICENZUTTI, A. A. TAVAGNUTTI,
G. SULLIGOI

ID54

Preliminary Design of a Full-Lithium-ion Battery Conventional Submarine

Cdr. A. FINA, Lt. Cdr. S. DE CICCIO

ID126

Design Analysis of the Ancient Italian Frigate "Terribile"

E. FASANO, G. ROSANO

ID31

Risk Factors Preventing Ships From Effective Vessel Traffic Services Reporting

S. ALAN, E. BAL BEŞİKÇİ

14:30 - 16:30

CONFERENCE SESSION C

MEETING ROOM: Aula C
CHAIRMAN: ENRICO RIZZUTO

SHIP STRUCTURES AND MATERIALS 2 - PRIN PROJECT

ID46

Fatigue Life Prediction of Ship Structures under Varying Sea States Using Numerical Simulations

D. CRISAFULLI, M. QUATTRONE, G. PALOMBA, P. CORIGLIANO

ID41

Effect of Sea State Conditions on Small Vessels

C. ALACQUA, D. CRISAFULLI, G. PALOMBA, D. BLANDINA, P. CORIGLIANO

ID93

Comparative Numerical Study on the Crashworthiness of Ship Structures

G. PALOMBA, V. CRUPI, P. CORIGLIANO

ID66

Numerical Evaluation of Ships Collisions

M. RAFFAELE, G. PALOMBA, F. SFRAVARA, P. CORIGLIANO

ID53

Incidence of Rank Correlation Algorithm on the Assessment of Bimodal Sea State Conditions Based on Ship Motion Analysis

V. PISCOPO, A. SCAMARDELLA

ID17

Sea Spectra Estimation from Hull Motions: Experimental Assessment of Regular and Irregular Sea Response Amplitude Operators

M. ACANFORA, M. ALTOSOLE, F. BALSAMO, F. DE LUCA, S. MANCINI, R. PIGAZZINI

16:30 - 17:00

COFFEE BREAK

17:00 - 18:30

CONFERENCE SESSION A

MEETING ROOM: Aula Magna
CHAIRMAN: MARCO ALTOSOLE

SHIP PROPULSION, MACHINERY AND SYSTEMS

ID69

Application of Modern Optimisation Techniques for Sustainable Ship Designs: a Case Study from Venice

G. MARELLI, A. DELL'ACQUA, G. GIURCO, G. DEGAN

ID10

Numerical Simulations of a Bulk Carrier with Flettner Rotors Using a Fully Nonlinear Potential Flow Solver

M. COPPOLA, F. COSLOVICH, M. MORGUT

ID97

Methanol on Board: Technical Challenges and Regulatory Compliance

M. ROIAZ, I. BATALLI, M. CRUCIL, F. CADENARO, M. NARDO, A. CROSATO, E. AGNELLO, G. SANCIN

ID135

Optimized Energy Storage System Sizing for a Series Hybrid Waterbus to Minimize Pollutant Emissions

F. MIRETTI, F. NOVELLO, D. A. MISUL, G. GENNARO, A. FERRARI

ID70

Advancing Maritime Training through a VR-Enhanced Ship Bridge Simulator: a Preliminary Usability Analysis

V. D'AUGUSTA, L. GAZZANEI, F. LONGO, K. A. MANFREDI, L. NICOLETTI, A. PADOVANO, V. SOLINA, S. TALARICO

17:00 - 18:30

CONFERENCE SESSION B

MEETING ROOM: Aula B
CHAIRMAN: SERGIO ABRAMI

YACHT DESIGN

ID43

Offshore powerboat racing, composites, and safety

S. ABRAMI

ID58

Analysis of Beam-to-Length Ratio Trends in Superyachts: Implications for Design, Performance and Regulatory Compliance

A. D. PERI, V. RUGGIERO

ID4

The Integration of AI Technologies in Modern Yacht Design Methodology

L. PAGANI, P. GEMELLI, M. I. ZIGNEGO, A. BERTIROTTI

ID19

Communication and Yacht Design: Strategies for Sustainable Luxury

D. NOEL

ID21

Interior Yacht Design for People with Autism Spectrum Disorder (ASD)

M. DI LECCE

17:00 - 18:30

CONFERENCE SESSION C

MEETING ROOM: Aula C
CHAIRMAN: ALBERTO MOROSO

COMFORT ON BOARD

ID2

Optimal Geometry of ABH-based Honeycomb Panels for Vibro-acoustic Control on Board Cruise Ships

G. KYAW OO D'AMORE, F. MAURO, G. ROGNONI, J. BARDIANI, M. BIOT

ID28

Comparison of Analytical and Experimental Natural Frequencies of a Composite Beam

G. ANGELICI, T. PAIS, G. VERGASSOLA, C. M. RIZZO

ID80

Suspended Casing: a Novel Installation Solution of the Engine Casing Equipment for Mitigation of Structure-borne Noise Onboard

F. M. MASTRACCI, F. GOBBO, A. IULIANO

ID105

Nonlinear Model-Based Control of a Gyroscopic Stabilization System for High-Speed Crafts

G. PEPE, M. LAURENZA, G. FEDERICI, S. MILANA, A. CARCATERRA

ID56

My Name is Christina O – Part Two

R. SALAFRICA

21:00

GALA DINNER

VILLA IDA

FRIDAY, JUNE 20th 2025

09:00 – 19:00

09:00 - 09:30

Invited Talk 3: Alessandro MACCARI

MEETING ROOM: Aula Magna

09:30 - 11:00

CONFERENCE SESSION A

MEETING ROOM: Aula Magna
CHAIRMAN: PASQUALINO CORIGLIANO

SHIP STRUCTURES AND MATERIALS 3

ID114

Parametric Design of HDPE Testing Specimens for Boatbuilding Applications

N. TAUCER MARCHESI, S. BERTAGNA, D. PADOLECCHIA, V. BUCCI, A. MARINO'

ID109

Investigation on the Tensile Properties of Virgin and Recycled HDPE for Boatbuilding Applications through Experimental Tests

S. BERTAGNA, N. TAUCER MARCHESI, V. BUCCI, G. BRANDO, F. DISTEFANO, V. CRUPI, A. MARINO'

ID42

Adopting Additive Manufacturing in Shipbuilding: Managing the Transition to Innovative Design, Structures and Materials

M. CHAIRI, G. MARABELLO, P. CORIGLIANO, G. PALOMBA, G. DI BELLA

ID124

Three-Point Bending Test for Mechanical Characterization of Commercial Antifouling Coating Deposited on DH36 Steel Plate

G. EPASTO, F. GIUDICE, D. RIZZO, C. SCOLARO, A. M. SILI, A. VISCO

ID119

3D Parametric Modeling for Ship Concept Design: A Flexible Approach to General Arrangement Plan

D. PADOLECCHIA, N. TAUCER MARCHESI, S. BERTAGNA, V. BUCCI

ID90

Optimisation of a Hybrid-Parallel Power Train For a Aframax Tanker to Minimise Emissions in Every Operative Condition

S. UTZERI, L. BRAIDOTTI, S. BERTAGNA, D. PADOLECCHIA, N. TAUCER MARCHESI, E. DEL PIERO, V. BUCCI, A. MARINO'

09:30 - 11:00

CONFERENCE SESSION B

MEETING ROOM: Aula B
CHAIRMAN: ANNA MASLOWSKA

HYDRODYNAMICS 3

ID39

Hydrodynamic Analysis of a Stepped Planing Hull through Sea Trials and CFD Simulations

M. CHILLEMI, F. CUCINOTTA, F. SFRAVARA

ID64

Drag Reduction Devices for Marine Applications

B. MELE

ID89

Comparison of regression models for hydrodynamic hull forces

V. FERRARI, A. MASLOWSKA, T. GORNICZ

ID37

Implementation of Innovative Strategies in Shipbuilding Production: the Experience of SHIPLEARNING on Friction Stir Welding and Reverse Engineering

S. PANFIGLIO, E. ABDALLA, C. BORSELLINO, M. CHAIRI, A. DENARO, G. MARABELLO, G. DI BELLA

ID130

Bridging the Skills Gap in Maritime Training: Preparing the Workforce for Vessel Electrification

D. PALMA ESPOSITO, V. SANGERMANO, A. AKSOZAND

ID72	Efficient Energy Management for Merchant Vessels: A Multi-Layered Optimization Approach M. BENDYK, S. GORANOV, M. MAIER, N. STYLIARAS, A. ZANELLI	
11:00 - 11:30	COFFEE BREAK	
11:30 - 12:30	CONFERENCE SESSION A	MEETING ROOM: Aula Magna CHAIRMAN: VINCENZO CRUPI
	SHIP STRUCTURES AND MATERIALS 4-LODE PROJECT A Comparative Life Cycle Assessment of Structural Solutions Using Dissimilar Materials and Hybrid Joints	
ID125	F. DI CAROLO, R. DE FINIS, D. PALUMBO, E. D'ACCARDI, G. BRIGUGLIO, V. CRUPI, U. GALIETTI Dissimilar Welded Joints for Ship Structures	
ID128	V. CRUPI, G. EPASTO, F. DISTEFANO, G. BRANDO, F. DI CAROLO, E. D'ACCARDI, U. GALIETTI Hybrid-Dissimilar Joints for Lightweight Structures	
ID129	G. EPASTO, C. GIORGIANNI, E. D'ACCARDI, F. DI CAROLO, D. RIZZO Characterization of Hybrid-Dissimilar Joints Using Non-Destructive Thermographic Techniques	
ID127	F. DI CAROLO, R. DE FINIS, D. PALUMBO, E. D'ACCARDI, G. EPASTO, U. GALIETTI	
11:30 - 12:30	CONFERENCE SESSION B	MEETING ROOM: Aula B CHAIRMAN: BENEDETTO MELE
	GREEN AND SMART SHIPS FOR SUSTAINABLE NAVIGATION 4 Eco-Design and Environmental Performance of Smart Buoy for Autonomous Marine Monitoring	
ID47	F. SALMERI, L. BARBIERI, E. BARBERI, F. CUCINOTTA A Structured Framework for Evaluating Logistics Networks: a Multidimensional Approach	
ID136	A. GALLANZA, R. MICALE Opportunity For Greener Maritime Transportation	
ID141	A. MARINO, E. VERMIGLIO Open AIS Data to Assess Seaside Operations in Container Ports	
ID122	O. M. BELCORE, M. DI GANGI, A. POLIMENI Vertical motion assessment in the concept design stage of a small cruise ship	
ID75	S. UTZERI, L. BRAIDOTTI, F. MAURO, J. PRPIĆ-ORŠIĆ, S. BERTAGNA, V. BUCCI	
12:30 - 13:30	CLOSING CEREMONY	
13:30 - 14:30	LUNCH BREAK	
14:30 - 19:00	SOCIAL EVENT	TAORMINA