



19th International Conference on *Ship & Maritime Research*



TRIESTE
20/22 JUNE 2018

Event organized by



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Conference Presentation



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 being the most important Italian forum for scientific and technical maritime community, attracting also specialists from all around 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 the Italian maritime excellence. 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 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).

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Sessions and workshops

Paper Sessions

- Ship Design
- Hydrodynamics
- Electrical Systems
- Safety and Security
- Offshore
- Ship Digitalization and Unmanned Vehicles
- Machinery and Systems Design
- Ship Efficiency and Renewable Energy
- Structures and Materials
- Navy and Cyber Security
- Comfort On Board
- Weather Routing and Environment Modeling
- Interior Yacht Design

Workshops (WS)

- | | |
|-------------|---|
| WS01 | New Developments and Technology for Shipbuilding and Maritime Industries – Session 1 |
| WS02 | New Developments and Technology for Shipbuilding and Maritime Industries – Session 2 |
| WS03 | NAVIM GROUP: From Idea through Design to Post Delivery Service |
| WS04 | SMALL SCALE LNG: Fuel for a Green Future of the Mediterranean Economy |
| WS05 | The Role of Research and Technological Development in the Mega-Yacht Sector |
| WS06 | NUMECA: CFD Simulation in Naval Architecture |
| WS07 | Cyber Security in the Marine Industry - How to Identify, Protect, Detect, Respond and Recover in the Marine Business Activities |

Organizer



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 Naval 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, ship-owners 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 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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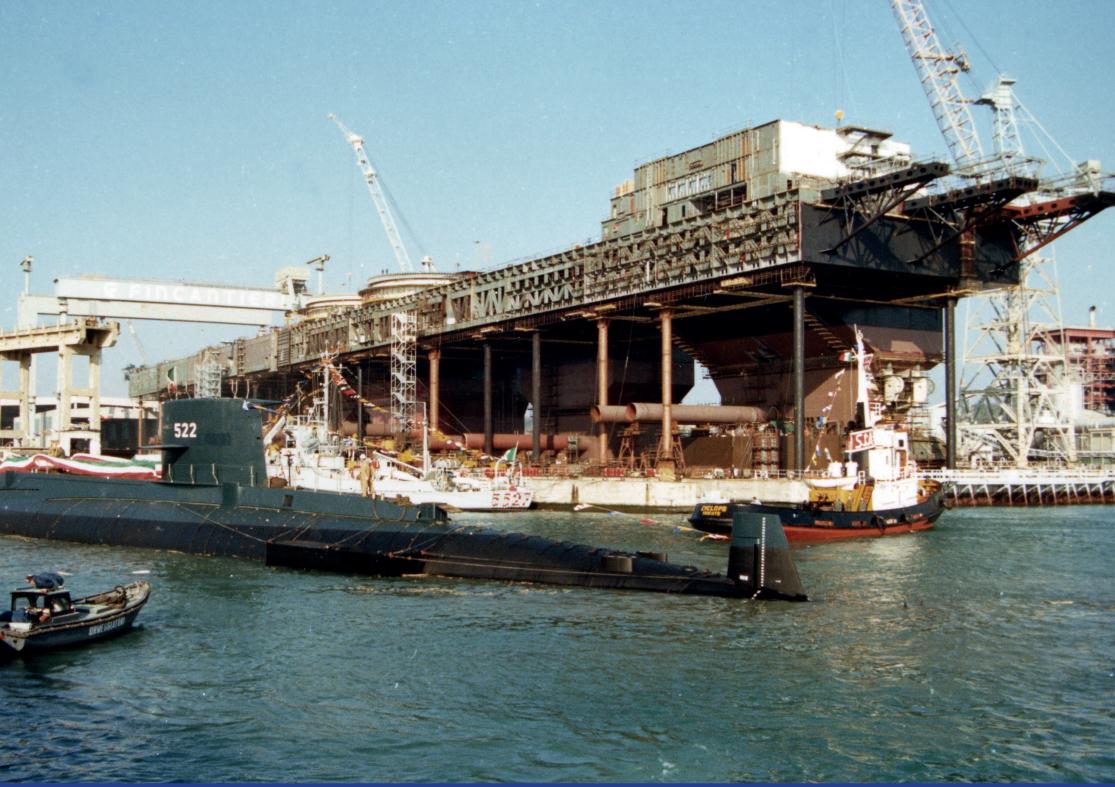
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Meeting timetable

20 JUNE	WEDNESDAY - DAY 1	8:30 - 19:00	
	Registration	8:30 - 12:30	FOYER
	Opening Cerimony	10:00 - 12:30	SATURNIA
	Lunch	12:30 - 14:00	FOYER
	Conference Session A	14:00 - 18:30	SATURNIA
	Conference Session B	14:00 - 18:30	OCEANIA AB
	Conference Session C	14:00 - 18:30	MARCONI
	Coffee Break	16:00 - 16:30	FOYER
	Exhibition	9:30 - 18:30	FOYER



21 JUNE	THURSDAY - DAY 2	8:00 - 18:30	
	Registration	8:00 - 14:30	FOYER
	Conference Session A	8:30 - 13:00	OCEANIA AB
	Conference Session B	8:30 - 13:00	MARCONI
	Conference Session C	8:30 - 13:00	SATURNIA
	Workshops Technology 1	9:00 - 13:00	VULCANIA 2
	Coffee Break	10:30 - 11:00	FOYER
	Lunch	13:00 - 14:30	FOYER
	Social Tour	14:30 - 19:00	AQUILEIA
	Workshops NAVALIMPIANTI	14:00 - 18:00	MARCONI
	Workshops Small Scale LNG	14:00 - 18:00	OCEANIA AB
	Workshops Mega Yacht	14:00 - 18:00	VULCANIA 2
	Coffee Break	16:00 - 16:45	FOYER
	Exhibition	8:30 - 18:15	FOYER
	Gala Dinner	21:00	EATALY

22 JUNE	FRIDAY- DAY 3	8:30 - 19:00	
	Opening and Registration	8:30 - 14:30	FOYER
	Conference Session A	9:00 - 17:00	SATURNIA
	Conference Session B	9:00 - 17:00	MARCONI
	Conference Session C	9:00 - 17:00	OCEANIA AB
	Workshops Technology 2	9:00 - 13:00	VULCANIA 2
	Coffee Break	10:30 - 11:15	FOYER
	Lunch	13:00 - 14:30	FOYER
	Workshops Cybersecurity	14:00 - 18:00	OCEANIA AB
	Workshops Numeca	14:00 - 16:00	VULCANIA 2
	Coffee Break	16:00 - 16:45	FOYER
	Exhibition	9:00 - 18:00	FOYER



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Program

WEDNESDAY, JUNE 20th 2018
08:30 – 19:00

08:30 – 12:30 Registration

09:30 – 18:30 Exhibition

OPENING CEREMONY

 MEETING ROOM: **SATURNIA**

10:00 – 10:15 Welcome Speech

10:15 – 11:30 Authority Speeches

11:30 – 12:30 Plenary Session

12:30 – 14:00 Lunch

14:00 – 16:00

CONFERENCE SESSION A

 MEETING ROOM: **SATURNIA**

CHAIRMAN: GIORGIO TRINCAS

SHIP DESIGN 1

IdT The EU Directive 2016/1629 and the UNECE Resolution 61 laying down technical requirements for inland navigation vessels: the CEMT actions to update and to implement them at paneuropean level
 D. TELESCA

Id85 Past, Present and Future in Ship Design
 R. PEREZ FERNANDEZ

Id99 A New Approach for Human Factor Integration into Ship Design Process
 C. BONGERMINO, P. GUALENI, F. BRACCO, M. MASINI, T. PICCINNO

Id92 Non-Linear and Modular Planning
 V. SLAPNIČAR, I. ADUM

Id166 An Innovative Concept for Inland Waterway Vessel
 A. BERNARDINI, L. COK, C. BARONI, C.M. LEGITTIMO, A. MARINÒ, F. MAURO, C. NASSO, V. BUCCI

Id31 Towards a New Toll Calculation Method for Transiting the Suez Canal - Bulk Carriers
 M. ABDEL NABY, M. ALI

Id168 The Bucintoro Preliminary Design: Static and Hydrodynamic Assessment
 G. SCARPA, L. BRAIDOTTI, F. MAURO, G. TRINCAS

Id38 Analysis of the Influence of Pressure Field on Accuracy for Onboard Stability Codes
 L. BRAIDOTTI, G. TRINCAS, V. BUCCI

14:00 – 16:00 CONFERENCE SESSION B MEETING ROOM: **OCEANIA AB**
CHAIRMAN: GIORGIO CONTENTO

HYDRODYNAMICS 1

- Id144 Numerical Investigation of 2D Vortex Induced and Wake Induced Vibrations of Two Circular Cylinders in Tandem Arrangement S. MARTINI, R. PIGAZZINI, T. PUZZER, M. MORGUT, G. CONTENTO
- Id181 Towards Guidelines for Consistent Wave Propagation in CFD Simulations S. RAPUC, P. CREPIER, F. JAOUEN, T. BUNNIK, P. REGNIER
- Id18 An Investigation on the Effects of Various Flow Parameters on the Underwater Flow Noise S. BULUT, S. ERGIN
- Id155 Performance Prediction of the DTMB 5415 Model in Irregular Waves via Urans Simulations C. LEOTARDI, A. SERANI, F. STERN, M. DIEZ
- Id55 The Effect of Long-Period Components of Added Resistance in Irregular Waves on Ship Performance in Actual Seas M. KURODA, K. TAKAGI, M. TSUJIMOTO, J. FUJISAWA
- Id56 Computations of Roll Motion in Waves Using a Fully Nonlinear Potential Flow Method F. COSLOVICH, G. CONTENTO, M. KJELLBORG, C.E. JANSON

14:00 – 16:00 CONFERENCE SESSION C MEETING ROOM: **MARCONI**
CHAIRMAN: VITTORIO BUCCI

MACHINERY AND SYSTEMS DESIGN 1

- Id101 A Shared Immersive Virtual Environment for Improving Ship Design Review M. JEZ, C. FANTONI, M. KEBER, S. RIGUTTI, M. STRAGÀ, P. MICEU, L. AMBROSIO, A. CARNAGHI, W. GERBINO
- Id122 Engineering Progress Measured on CAD 3D Model Data rather than Drawings I. JURICIC, L. MARESCA
- Id110 Fuel Cells and Shipping Emissions Mitigation R. TACCAI, F. USTOLIN, N. ZULIANI, P. PINAMONTI, A. PIETRA
- Id128 Recent Advances on Propeller Shaft lines for the Marine Industry E. BOLETIS, M. KELLER

- Id136 Alternative Fuels: Present and Future of Containment Technologies and Impact On Shipbuilding F. CADENARO, E. FORT

- Id19 High Efficiency Waste Heat Recovery from Dual-Fuel Marine Engines M. ALTOSOLE, U. CAMPORA, M. LAVIOLA, R. ZACCONE

16:00 – 16:30 Coffee Break





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16:30 – 18:30 CONFERENCE SESSION A

MEETING ROOM: **SATURNIA**
CHAIRMAN: ALESSANDRO MACCARI

SAFETY AND SECURITY

- Id149 Dealing with Novel and Emerging Threats in the Maritime Industry: The Need for an Alternative Life-Cycle Risk Management Framework
N.P. VENTIKOS, K. LOUZIS
- Id143 Hybrid Life-Saving Appliances: A Novel Evacuation-System Concept Solution
G. SANCIN
- Id63 SRtP 2.0 – The Evolution of the Safe Return to Port concept
D. CANGELOSI, A. BONVICINI, M. NARDO, A. MOLA, A. MARCHESE, M. TEZZELE, G. ROZZA
- Id113 Risk Based Designs
P. DAVIES, M. NARDO
- Id102 Fuzzy Analytical Hierarchical Process to Assess Weights of Importance in an Operative Risk Assessment
L. BRAIDOTTI, J. PRPIĆ-ORŠIĆ, M. VALČIĆ, G. TRINCAS, V. BUCCI
- Id182 Ship Survivability Study Using High Fidelity CFD
A. CALDAS, C.G. ZEGOS, S. SKOUPAS, J. JENKINS
- Id123 LNG Opportunities for Harbor Development
L. COK, L. DE ZOTTI, O. PEROSA

16:30 – 18:30 CONFERENCE SESSION B

MEETING ROOM: **OCEANIA AB**
CHAIRMAN: RADOSLAV NABERGOJ

OFFSHORE

- Id42 Modular Platforms for Early Production / Full Field Applications
M. BUSETTO, M. ZENNARO, A. RIMOLDI, C. PALUMBO
- Id65 Heavy-Lifting: Coupled Stability & Structural Analysis in a Load-Out Operation
S. DARDEL, N. DANESI, J.L. MORBELL, S. FLOURET
- Id37 Evaluation of Extreme Wave Loads for Slender Tubular Structures
F. MAURO, M. MONACOLLI
- Id98 Station-Keeping Calculations in Early Design Stage: Two Possible Approaches
F. MAURO, F. GAUDIANO
- Id36 Effect of Propeller Modelling on Station- Keeping Thruster Allocation Strategy
F. MAURO, E. DURANTI

16:30 – 18:30	CONFERENCE SESSION C	MEETING ROOM: MARCONI CHAIRMAN: BRUNO DELLA LOGGIA
	SHIP DIGITALIZATION AND UNMANNED VEHICLES	
Id146	Assessing Business Cases for Autonomous and Unmanned Ships Ø.J. RØDSETH	
Id71	Launch and Recovery for Ship-Deployed Autonomous Underwater Vehicles A.M. YAZDANI, K. SAMMUT, O.A. YAKIMENKO, A. LAMMAS	
Id67	3D Adaptive Coverage Planning for Confined Space Inspection Robots R. PIVETTA, A. LAMMAS, K. SAMMUT	
Id29	Wetlands Monitoring: Hints for Innovative Autonomous Surface Vehicles Design A. ODETTI, M. ALTOSOLE, M. CACCIA, M. VIVIANI, G. BRUZZONE	
Id186	Fastening of the Data Transmission in High Latency Satellite Networks R. KRATZ, H. OSTERWIND	

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THURSDAY, JUNE 21th 2018 **08:00 – 18:30**

08:00 – 14:30	Registration
08:30 – 18:15	Exhibition
 CONFERENCE SESSION A MEETING ROOM: OCEANIA AB CHAIRMAN: GIOVANNI CAPRINO	
MACHINERY AND SYSTEMS DESIGN 2	
Id84	Technical and Economic and Environmental Feasibility of an Innovative Integrated System of Management and Treatment of Waste On Board A. IANNELLO, S. BERTAGNA, D. POZZETTO, L. TONEATTI, R. ZAMARINI, V. BUCCI
Id86	Economic Impacts of the Ballast Water Treaty: A Case Study for The Netherlands and Belgium E. VAN HASSEL, C. SYS, B. KUIPERS, M. STRENG
Id111	A Simulation Model for Hybrid-Electric Inland Waterway Passenger Vessels F. MAURO, C. NASSO, U. LA MONACA, V. BUCCI
Id132	Hybrid Energy and Propulsion System for Vessels in Timetable Operation M. EINSIEDLER
Id169	LESS: A New Simulation Environment for The Preliminary Design of Cruise Ship Energy Systems B. BISELLO, D. CANGELOSI, M. CAPOBIANCO, D. MICHELI, P. PINAMONTI, G. STRANIERI, R. TACCANI, F. USTOLIN
Id183	Hybrid System Design and Performance Basing on Actual Vessel Operational Data L. BRIGATI, A. ZOTTI, T. LAMBERTI, A. TRAVERSO
 CONFERENCE SESSION B MEETING ROOM: MARCONI CHAIRMAN: ANTONIO SCAMARDELLA	
HYDRODYNAMICS 2	
Id50	Shape Optimization by means of Proper Orthogonal Decomposition and Dynamic Mode Decomposition N. DEMO, M. TEZZELE, G. GUSTIN, G. LAVINI, G. ROZZA
Id100	Model Order Reduction by means of Active Subspaces and Dynamic Mode Decomposition for Parametric Hull Shape Design Hydrodynamics M. TEZZELE, N. DEMO, M. GADALLA, A. MOLA, G. ROZZA

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Id46	Fully Automated Ship Resistance Prediction using the Naval Hydro Pack I. GATIN, V. VUKČEVIĆ, V. ŠKURIĆ, H. JASAK
Id130	A Numerical Way for a Stepped Planing Hull Design and Optimization F. DI CATERINO, R. NIAZMAND BILANDI, S. MANCINI, A. DASHTIMANESH, M. DE CARLINI
Id157	Experimental and Numerical Prediction of the Hydrodynamic Performances of A 65 Ft Planing Hull in Calm Water R. PIGAZZINI, T. PUZZER, S. MARTINI, M. MORGUT, G. CONTENTO, I. GATIN, V. VUKČEVIĆ, H. JASAK, E. BEGOVIC, S. CALDARELLA, M. DE SANTIS, A. MIGALI
Id94	On the Stability of Underwater Glider at Balancing Motions Modes A. SUKHORUKOV, M. TITOV
Id89	Time Domain Assessment of Vertical Motions of Planing Hulls S. PENNINO, E. BEGOVIC, C. BERTORELLO, A. SCAMARDELLA
08:30 – 10:30	CONFERENCE SESSION C
Id112	SHIP DESIGN 2 GASVESSEL - CNG Sea Transportation Project L. COK, P. BUSETTO, L. DE ZOTTI, S. DORIGO, S. ANGELINI
Id83	Comparison of Marine Technologies for Mediterranean Offshore Gas Export G. TRINCAS
Id145	Effect of Different Propulsion Systems on CNG Ships Fleet Composition and Economic Effectiveness F. MAURO, G. TRINCAS, L. BRAIDOTTI
Id185	Small-scale LNG in East Med: Unlocking the Permitting Puzzle Through Robust Safety Assessment Methodologies and Expertise A. APOSTOLOPOULOU, T. KOLIOPULOS, T. KOURBELIS, A. KOUVERTARI, P. MENTZI, P. MITROU
Id58	Towards Building an Attained Index of Passenger Ship Fire Safety I. KOROMILA, K. SPYROU, N. THEMELIS, S. IOANNOU
Id64	The Application of Goal Based Design for Passenger Ship Safety Improvement M. DREOSSI, A. BONVICINI
Id141	A Ballast Allocation Technique to Minimize Fuel Consumption L. BRAIDOTTI, F. MAURO, L. SEBASTIANI, S. BISIANI, V. BUCCI
10:30 – 11:00	Coffee Break

11:00 – 13:00	CONFERENCE SESSION A SHIP DESIGN 3 Id16 Possibility of Placing a Retractable Sail System for an Oil Tanker to Optimize Its Efficiency C. FAITAR, L. STAN Id30 U-SWATH, the Innovative CNR Research G. BRUZZONE, A. ODETTI, M. BIBULI, M. CACCIA, D. CALCAGNI, I. SANTIC, C. LUGNI, E.F. CAMPANA Id121 Comparative Study of Hydrodynamic Performance for Optimal Designs of Catamaran and SWATH for Site-Specific Operations S.K. LEE, J. LIU, H. LU, L. XU, J. LIU Id25 A New Escort Tug Family Designed to Anticipate New Safety Requirements and Operational Needs M. FIGARI, L. MARTINELLI, M. MARTELLI, L. ENOIZI, B. PIAGGIO Id107 Vertical Motions Assessment of an Offshore Supply Vessel in Concept Design Stage F. MAURO, A. DELL'ACQUA	MEETING ROOM: OCEANIA AB CHAIRMAN: VEDRAN SLAPNICAR
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11:00 – 13:00	Id39 Systematic Analysis of Geometrical Characteristics of Hulls for Displacement Yacht V. RUGGIERO Id32 Developments of New Patented Ice Breaking Devices for Ice Going Vessels G. LAVINI, G. AVELLINO	MEETING ROOM: MARCONI CHAIRMAN: GIOVANNI BRACCO
CONFERENCE SESSION B SHIP EFFICIENCY AND RENEWABLE ENERGY		
11:00 – 13:00	Id12 An Alternative Approach for Assessment of the Weather Factor in EEDI Formulation Using Statistical Ranking Theory R. KISHEV, S. KIRILOVA Id80 Monitoring Systems at the Service of Ship's Energy Efficiency: Measurements Campaign and Analysis of the Actual Electrical Absorptions On Board F. PIASTRA, S. QUALICH Id87 Implementation of Ship Energy Efficiency Requirements in Offshore Shipping Industry B. BELEV, R. STOYANOV, R. HANZU-PAZARA Id26 Nonlinear Computations of Heave Motions for a Generic Wave Energy Converter C.E. JANSON, A. SHIRI, J. JANSSON, M. MORAGUES, D. CASTANON, L. SAAVEDRA, C. DEGIRMENCI, M. LEONI Id114 Application of a Passive Control Technique to the ISWEC: Experimental Tests on a 1:8 HIL Test Rig M. BONFANTI, G. BRACCO, P. DAFNAKIS, E. GIORCELLI, B. PASSIONE, N. POZZI, S.A. SIRIGU, G. MATTIAZZO Id156 Experimental Investigation of the Hydrodynamic Performance of the ISWEC 1:20 Scaled Device S.A. SIRIGU, M. BONFANTI, B. PASSIONE, E. BEGOVIC, C. BERTORELLO, P. DAFNAKIS, G. BRACCO, E. GIORCELLI, G. MATTIAZZO Id129 PeWEC: Preliminary Design of Full-Scale Plant for the Mediterranean Sea N. POZZI, A. BONETTO, M. BONFANTI, G. BRACCO, P. DAFNAKIS, E. GIORCELLI, B. PASSIONE, S.A. SIRIGU, G. MATTIAZZO	

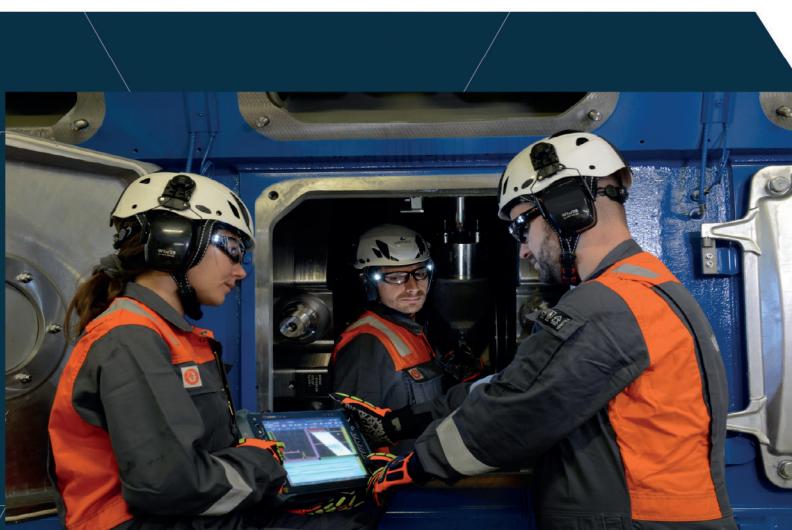

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11:00 – 13:00 CONFERENCE SESSION C

MEETING ROOM: **SATURNIA**
CHAIRMAN: ERMINIA BEGOVIC

HYDRODYNAMICS 3

- Id88 Comparative Test in Design of Hydrofoils for a New Generation of Ships
F. MORACE, V. RUGGIERO
- Id127 Experimental Investigation of Blade and Propeller Loads During Straight Ahead Sailing
F. ORTOLANI, G. DUBBIOSO, I. SANTIC, S. MAURO
- Id138 Extensive Cavitation Tunnel Acoustic Characterization of Controllable Pitch Propellers
F. MIGLIANTI, G. TANI, M. VIVIANI, D. BERTETTA, C. VACCARO
- Id170 Experimental Investigation of Sloshing in the Rectangular Tank Under the Hydrophobic Effect
F.C. KORKMAZ, K. YIGIT, B. GUZEL
- Id51 Theoretical and Experimental Investigations of Appendages and Heeling Angle Influences on the Hydrodynamic Resistance of a Sailing Yacht
D.C. OBREJA, L. CRUDU, M. SĂLCIANU, R.G. PLINGU
- Id61 System for Speed/Power Trials Measurement and Analysis in Accordance with International Recommended Procedure
P. BECCHI, M. BASSETTI, M. GARBARINO, G. CUSANO
- Id33 Gain in Fuel Consumption with Frictional Resistance Reduction by Air-Bubbling Technique
E. RAVINA, S. GUIDOMEI

09:00 – 13:00

WORKSHOP

MEETING ROOM: **VULCANIA 2**

NEW DEVELOPMENTS AND TECHNOLOGY FOR SHIPBUILDING AND MARITIME INDUSTRIES – Session 1

- Participants**
ECOSPRAY, CJC, ENGYS, HEXAGON, ALFALVAL, WÄRTSILÄ, NUMECA INTERNATIONAL
- 10:30 – 11:15** Networking Coffee Break
- 13:00 – 14:30** Lunch

14:00 – 18:00

WORKSHOPMEETING ROOM: **MARCONI****NAVIM GROUP: FROM IDEA THROUGH DESIGN TO POST DELIVERY SERVICE****Participants**

NAVALIMPIANTI S.P.A., HATECKE GMBH

Winch braking systems for LSA: a comparison between different technologies

ENG. ROBERTO SCOLARO, TECHNICAL DIRECTOR NAVALIMPIANTI SPA

Accidents at sea and related statistics on the effectiveness of the different evacuation / rescue systems

ING. VINCENZO AMATULLI, PLANNING MANAGER NAVALIMPIANTI S.P.A.

The new frontiers of lighting design on cruise ships: a clear break with the past

LUCA MONTANARO, COMMERCIAL EXECUTIVE NAVALIMPIANTI SPA

Hatecke GmbH

16:00 – 16:45 Networking Coffee Break



14:00 – 18:00

WORKSHOPMEETING ROOM: **OCEANIA AB****SMALL SCALE LNG: FUEL FOR A GREEN FUTURE OF THE MEDITERRANEAN ECONOMY****Participants**

ASSOPORTI & PORTO AUTHORITY OF THE EASTERN ADRIATIC SEA,
 ASSOGALIQUIDI – FEDERCHIMICA, GAS AND HEAT S.P.A., MARINE &
 OFFSHORE DIVISIONE BUSINESS & SOLUTIONS DEVELOPMENT MANAGER
 BUREAU VERITAS, M.E.S., WÄRTSILÄ, EDISON, NAVALPROGETTI, CORPO DELLE
 CAPITANERIE DI PORTO – GUARDIA COSTIERA

16:00 – 16:45 Networking Coffee Break

14:00 – 18:00

WORKSHOPMEETING ROOM: **VULCANIA 2****THE ROLE OF RESEARCH AND TECHNOLOGICAL DEVELOPMENT IN THE MEGA-YACHT SECTOR****Participants**

FINCANTIERI MY, MONTECARLO YACHT, VIAREGGIO SUPER YACHT, LLOYDS
 REGISTER, AMERICAN BUREAU OF SHIPPING

16:00 – 16:45 Networking Coffee Break

14:30 – 19:00

SOCIAL TOUR

Basilica di Aquileia, UNESCO World Heritage Site
 Museo Archeologico Nazionale di Aquileia

21:00

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FRIDAY, JUNE 22th 2018

08:30 – 18:00

08:30 – 14:30 Registration

09:00 – 18:00 Exhibition

09:00 – 10:30 **CONFERENCE SESSION A**

MEETING ROOM: **SATURNIA**
CHAIRMAN: VINCENZO CRUPI

STRUCTURES AND MATERIALS 1

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| Id15 | On the Deck Structural Layout of Megayacht
G. VERGASSOLA, D. BOOTE, T. PAIS, L. RICCI |
| Id96 | Local Strain Approaches for LCF Life Prediction of Ship Welded Joints
P. CORIGLIANO, V. CRUPI, P. DONG, W. FRICKE, E. GUGLIELMINO |
| Id97 | Analytical Formulation of Plating Ultimate Strength with Pitting Corrosion Wastage
V. PISCOPO, A. SCAMARDELLA |
| Id103 | Buckling Analysis of Explosive Welded Joints for Ship Structures
P. CORIGLIANO, V. CRUPI, E. GUGLIELMINO |
| Id164 | Internal Forces and Moments on Hull Girder due to Parametric Roll Development
M. ACANFORA, T. COPPOLA |
| Id148 | Interaction between Industry and Class Societies in Cruise Ships Structural Design: A Positive Fincantieri Experience
M. SICCHIERO, M. SIDARI, V. LIQUORI, M. CROCE, A. TARELLO, E. GOMBI, A. GRASSO |

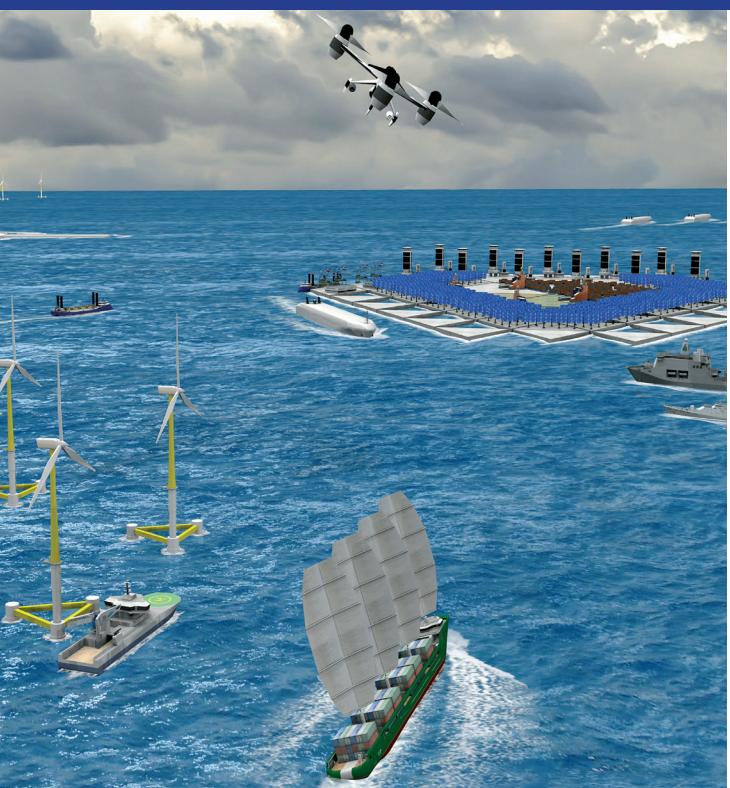
09:00 – 10:30

CONFERENCE SESSION B

MEETING ROOM: **MARCONI**
CHAIRMAN: VINCENZO ARMENIO

WHETHER ROUTING AND ENVIRONMENT MODELING

- | | |
|-------|--|
| Id45 | Climate Changes and Maritime Transportation: A State of the Art
L. MOCERINO, F. QUARANTA, E. RIZZUTO |
| Id69 | Low Carbon Intensity Routes Via Ocean Currents and Waves
G. MANNARINI, N. PINARDI, G. COPPINI |
| Id131 | Kotor Bay area hydrodynamics and pollutant dispersion simulations: a tool for contingency plans
G. ZANIER, F. GIUNTO, A. PETRONIO, F. ROMAN, R. GACIC, D. NIKOLIC |
| Id159 | Preliminary assessment of route optimisation for fuel minimisation and safety of navigation by the use of cooperatively collected data at sea
A. ORLANDI, R. BENEDETTI, V. CAPECCHI, A. ORTOLANI, L. COSTALLI |



<p>Id142 Air quality simulations and forecasting of along-route ship emissions in realistic meteo-marine scenarios A. ORLANDI, F. CALASTRINI, F. GUARNIERI, C. BUSILLO, A. CORADDU</p> <p>Id139 Numerical simulation of hot smoke plumes from funnels F. ROMAN, V. ARMENIO, A. FAKHARI, C. CINTOLESI, A. PETRONIO</p> <p>09:00 – 10:30 CONFERENCE SESSION A MEETING ROOM: OCEANIA AB CHAIRMAN: ENRICO RIZZUTO</p> <p>COMFORT ON BOARD</p> <p>Id163 Airborne noise prediction of a ro/ro pax ferry in the port of Naples T. COPPOLA, L. MOCERINO, E. RIZZUTO, M. VISCARDI, D. SIANO</p> <p>Id95 Survey procedures and class notation harmonization for an effective quantification of passenger comfort G. SCARINZI, L. BREGANT, M. BIOT</p> <p>Id27 Environmental Monitoring System in a Cruise Ship Cabin P. BARONTI, P. BARSOCCHI, E. FERRO, D. LA ROSA, R. NERINO, M. PIOTTO, P. RAVAZZANI, G. TOGNOLA, D. CELOTTI, P. GUGLIA</p>	<p>Id34 Ontologies' definition for modelling the cabin comfort on cruise ships D. SPOLADORE, S. ARLATI, M. NOLICH, S. CARCIOTTI, A. RINALDI, D. CELOTTI, P. GUGLIA</p> <p>Id43 Cruise Cabin as a Home: smart approaches to improve cabin comfort R. BUQI, S. CARCIOTTI, M. CIPRIANO, P. FERRARI, M. NOLICH, A. RINALDI, W. UKOVICH, D. CELOTTI, P. GUGLIA</p> <p>Id179 The irradiated noise limits of the Rules are very different: how it is possible for cruise shipbuilders to deal with very different technical approach? F. DE LORENZO, A. OLIVA TOMAS</p> <p>10:30 – 11:15 Coffee Break</p> <p>11:15 – 13:00 CONFERENCE SESSION A MEETING ROOM: SATURNIA CHAIRMAN: ALBERTO MARINÒ</p> <p>STRUCTURES AND MATERIALS 2</p> <p>Id40 Surface Treatments for Ship Hulls – Present Situation and Trends M. DELUCCHI, G. CERISOLA, E. RIZZUTO</p> <p>Id41 An innovative thermal and acoustic insulation foam for naval fire doors: characterization and study with FEM analysis G. KYAW OO D'AMORE, M. CANIATO, C. SCHMID, L. MARSICH, A. FERLUGA, L. COZZARINI, A. MARINÒ</p> <p>Id73 Innovative Material Design for Marine Engine Non-Structural Components S. BERTAGNA, E. LAURINI, A. MARINÒ, S. PRICL, V. BUCCI</p> <p>Id133 FEM-Aided Structural Design of a Natural Fiber Composite Made Skiff C. MOSCOLONI, M. FONTANA, B. PASSIONE, M. CINEFRA, G. MATTIAZZO</p> <p>Id167 The Strip Planking: An Eco-Friendly Solution for the End-of-Life of Ships C. NASSO, U. LA MONACA, A. MARINÒ, S. BERTAGNA, V. BUCCI</p> <p>Id68 PLM implementation: case study of a success N. DANESI, P. PAGLIUCA, S. DARDEL</p> <p>11:15 – 13:00 CONFERENCE SESSION B MEETING ROOM: MARCONI CHAIRMAN: GIORGIO SULLIGOI</p> <p>ELECTRICAL SYSTEMS</p> <p>Id140 A case for innovative thinking: Expanding the boundaries of environmental protection as a result of energy design efficiencies in expeditionary yachts M. CORSETTI, R. DELPIZZO</p>
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- Id152 Innovative Energy Systems: Motivations, Challenges and Possible Solutions in the Cruise Ship Arena
A. BOVERI, M. MAGGIONCALDA, D. RATTAZZI, P. GUALENI, L. MAGISTRI, F. SILVESTRO, A. PIETRA
- Id154 Distributed Energy Resources On-Board Cruise Ships: Integration into the Ship Design Process
G. FLORE, D. NERONI, T. LAMBERTI, P. GUALENI, L. MAGISTRI, F. SILVESTRO, A. PIETRA
- Id137 Integrated Ship Design and CSI Modeling: A New Methodology for Comparing Onboard Electrical Distributions in the Early Stage Design
V. BUCCI, U. LA MONACA, D. BOSICH, G. SULLIGOI, A. PIETRA
- Id24 Shore to ship power supply integrating conventional and distributed generators along with storage
G. TORRI, S. CASINI, D. MONDO, A. PICCIN
- Id124 A mixed AC/DC low voltage electrical distribution architecture for increasing the payload on ships
M.C. DI PIAZZA, M. LUNA, G. LA TONA, A. ACCETTA, M. PUCCI, A. PIETRA

- 11:15 – 13:00 **CONFERENCE SESSION C** MEETING ROOM: **OCEANIA AB**
CHAIRMAN: PAOLO FRANDOLI
- NAVY AND CYBER SECURITY**
- Id119 The Green Fleet Project: Energy Saving Measures
M. LEONARDI
 - Id118 Italian Navy future fleet – Analysis on on board electrical system and cold ironing
M. CATANEO, G. LIPARDI
 - Id28 At-sea NATO operational experimentation with interoperable underwater assets using different robotic middlewares
R. COSTANZI, D. FENUCCI, V. MANZARI, M. MICHELI, L. MORLANDO, D. NATALE, M. STIFANI, A. TESEI, A. CAITI
 - Id150 The Cyber Risk and its management in the Marine Industry
E. CASSI, J.P. CAVANNA, P. SCIALLA
 - Id117 Naval automation cyber defence guidelines
D. CARDELLICCHIO
 - Id115 Definition and Development of the Modularity Features for the Italian Navy Multirole Patrol Vessel Mission Bays
F. GRECO, S. SERPAGLI

- 09:00 – 13:00 **WORKSHOP** MEETING ROOM: **VULCANIA 2**
- NEW DEVELOPMENTS AND TECHNOLOGY FOR SHIPBUILDING AND MARITIME INDUSTRIES – Session 2**

- Participants
FIPE, CETENA, LLOYD'S REGISTER, NAVALPROGETTI, MES
- 10:15 – 11:00 Networking Coffee Break
- 13:00 – 14:30 Lunch

- 14:30 – 16:30 **CONFERENCE SESSION A** MEETING ROOM: **SATURNIA**
CHAIRMAN: ENRICO DELLA VALENTINA
- INTERIOR YACHT DESIGN**
- Id78 Interior Yacht Design: evolution and new scenarios
M. CAMPOLONGO



CETENA S.p.A.

SATURNIA

Id108 Interior Design of Motor Yacht, Evolution of Style and Typology
E. CARASSALE

Id151 Inclusive Yacht Design
P. FERRARI, W. UKOVICH

Id161 An Italian Way for Yacht Coding?
L. GIUNTA

14:30 – 16:30 **CONFERENCE SESSION B** MEETING ROOM: **MARCONI**
CHAIRMAN: LIVIU CRUDU

HYDRODYNAMICS 4

Id20 The use of modern computational tools in the design process of unconventional propellers for performance prediction and full-scale extrapolation
J. GONZÁLEZ-ADALID, M. PÉREZ-SOBRINO, S. GAGGERO, G. GENNARO, A. MORÀN GUERRERO

Id35 Fluid dynamics optimization of a shaft-less rim-driven propeller
A. MIGALI, D. BRUNO, D. MALGIERI, L. PARUSSINI, M. DE SANTIS

MARCONI

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- | | |
|-------|---|
| Id106 | Hydrodynamic noise from a propeller in open sea condition
M. CIANFERRA, A. PETRONIO, V. ARMENIO |
| Id125 | Numerical predictions of a model scale propeller working in uniform and oblique flow
M. MORGUT, D. JOŠT, A. ŠKERLAVAJ, E. NOBILE, G. CONTENTO, R. PIGAZZINI, T. PUZZER, S. MARTINI |
| Id135 | On the evaluation of propeller induced pressures during initial design stages
L. CRUDU, R. NABERGOJ, O. MARCU, O. NECULET |
| Id54 | CFD Automated Self Propulsion Test
G. GUSTIN, G. LAVINI, F. MOCNIK |
| Id13 | Viscous Flow Computations for the Large Water Tunnel
A.Y. GURKAN, U.O. UNAL, C.S. KOKSAL, C. AYDIN |

MARCONI

14:00 – 18:00 **WORKSHOP** MEETING ROOM: **OCEANIA AB**
CYBER SECURITY IN THE MARINE INDUSTRY – HOW TO IDENTIFY, PROTECT, DETECT, RESPOND AND RECOVER IN THE MARINE BUSINESS ACTIVITIES

Co-organized with
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15:20 – 15:40 **Participants**
ABB, ABS, AXELOS, AXIANS, CISCO SYSTEMS, LLOYD'S REGISTER, NETTITUDE, PALO ALTO NETWORKS, SIEMENS, WÄRTSILÄ

Networking Coffee Break

14:00 – 16:00 **WORKSHOP** MEETING ROOM: **VULCANIA 2**
NUMECA: CFD SIMULATION IN NAVAL ARCHITECTURE

Partecipants
NUMECA INTERNATIONAL

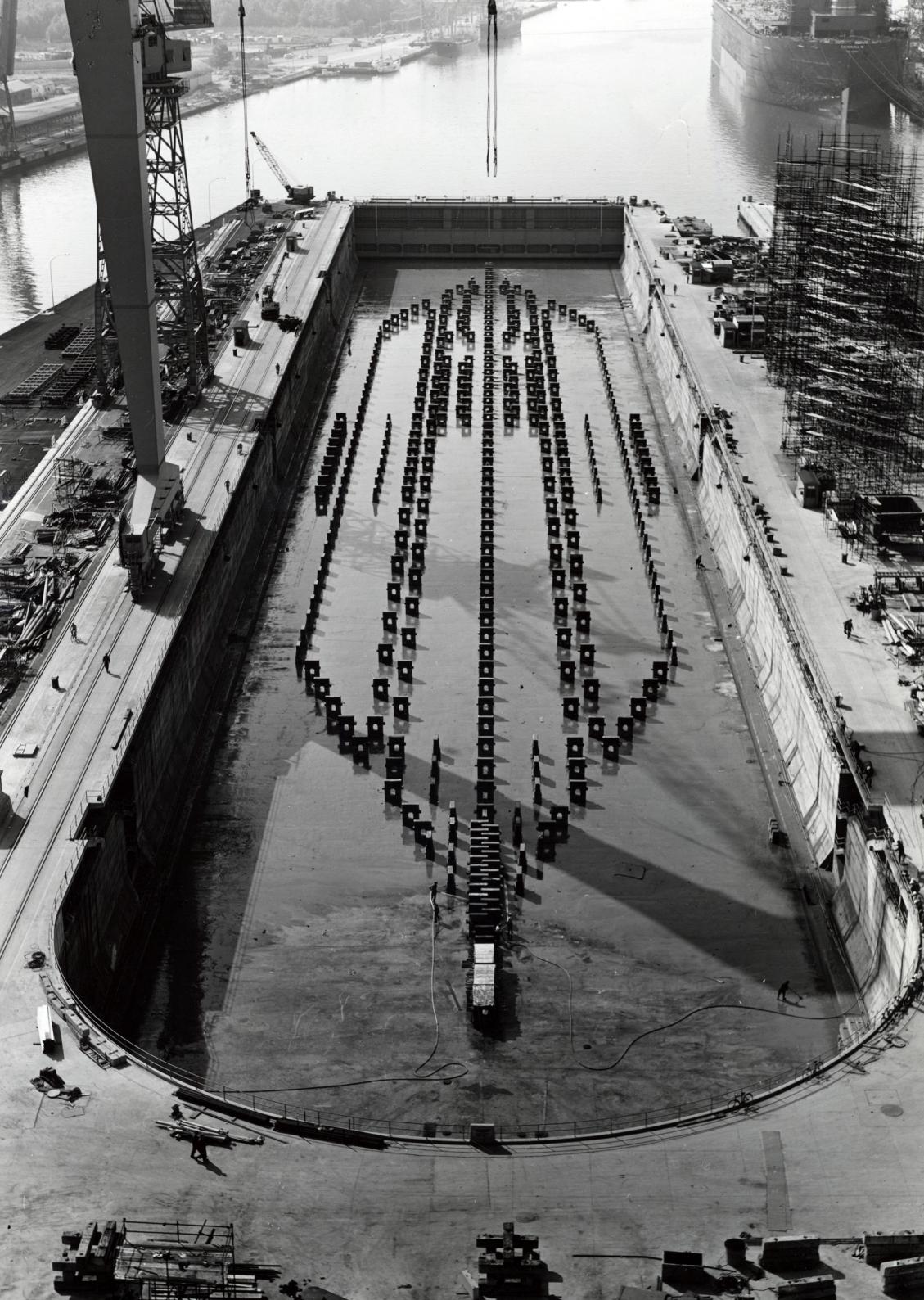
18:00 – 18:30 **CLOSING CEREMONY** MEETING ROOM: **SATURNIA**

OCEANIA



Author list

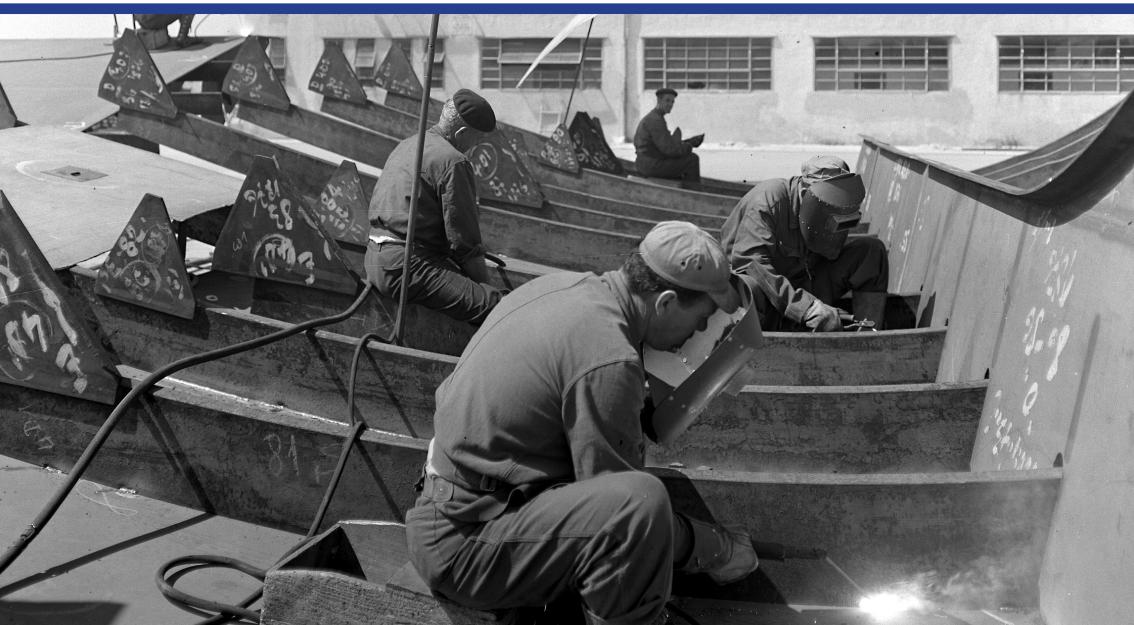
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Venue

STAZIONE MARITTIMA – CONFERENCE HALL

Molo Bersaglieri, 3 - 34133 Trieste (TS)

HOW TO REACH THE VENUE

FROM THE TRAIN STATION

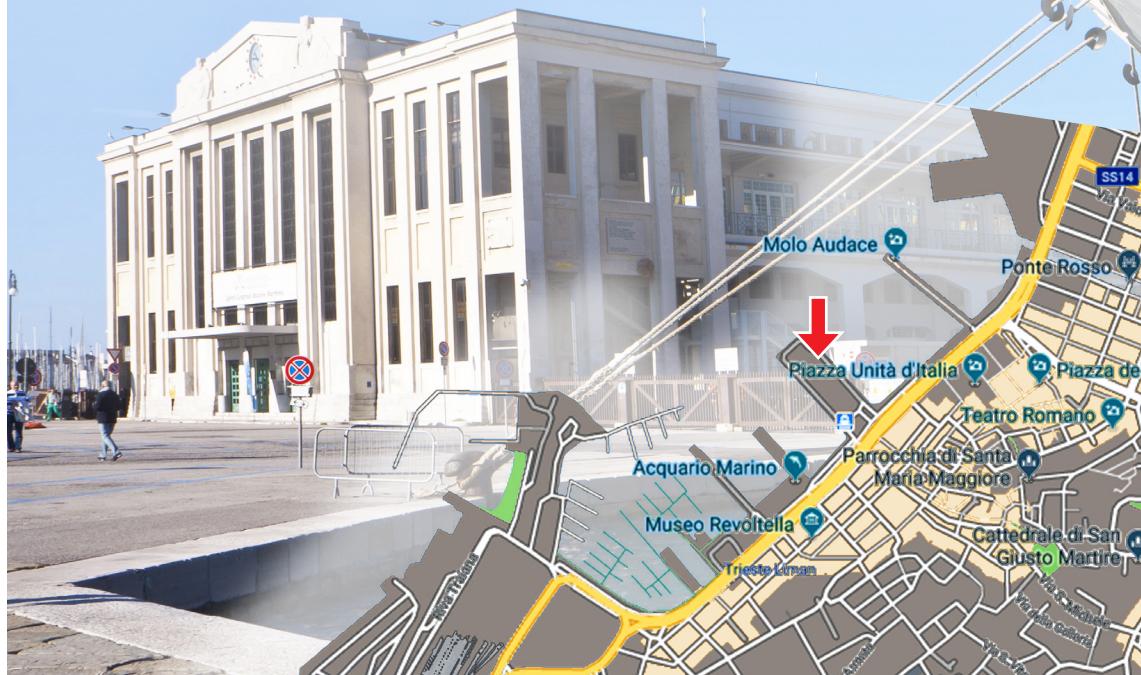
From Trieste Central Railway Station (800 m), you can enjoy a walk along the sea or take bus n. 8 or n. 30. The stop is in front of the Stazione Marittima Conference Hall.

FROM THE MOTORWAY

From the A4 Venice / Trieste Highway (27 km), take the 'Sistiana / Trieste Centro' exit and follow the directions to the center of Trieste. Once on the seafront, you will see the Stazione Marittima Conference Hall near Piazza Unità D'Italia.

FROM THE AIRPORT

From Ronchi del Legionari airport (35 km) take the coach n. 51 to Trieste; you will stop at the Coach Station. Alternatively you can take a train from Trieste Airport Railway Station that gets you into the Central Railway Station. From both Coach and Railway Station you can enjoy a walk along the sea or take bus n. 8 or n. 30, the stop is in front of the Stazione Marittima Conference Hall.





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