IMAM 2025

**20th International Congress of the
International Association of the Mediterranean**

(28 September – 3 October 2025)

ISSW 2025

20th International Ship Stability Workshop

(1 – 3 October 2025)

Conference Program

Chania, Crete, Greece

ABOUT IMAM 2025

The IMAM Congresses are focused on all contemporary matters of marine and maritime technology. They are organized by a country located close to the Mediterranean basin under the guidance of the International Maritime Association of the Mediterranean (IMAM) and they have been taking place regularly since 1978. The International Maritime Association of the Mediterranean is a voluntary organization that was initially established in 1974 by maritime institutions from six East Mediterranean countries (Bulgaria, Egypt, Greece, Italy, Turkey and Yugoslavia). Progressively it was enlarged to include countries from West Mediterranean as well as other neighboring countries. The current congress, IMAM 2025, is held in Platanias (near Chania) in Greece. The congress website is: https://imam2025.elint.org.gr.

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ABOUT ISSW 2025

The International Ship Stability Workshops (ISSW) have been running regularly since 1995 under the auspices of the Standing Committee of the International Conference on the Stability and Safety of Ships and Ocean Vehicles (STAB&S). They are the most representative professional meetings in the field of ship stability and safety, characterized by their informal character and depth, attracting specialized researchers from academia and research institutions, as well as, representatives of shipping companies, shipyards, classification societies, consultants, maritime authorities and other stakeholders (https://shipstab.org).

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IMAM 2025 & ISSW 2025 VENUE: PORTO PLATANIAS BEACH RESORT & SPA

Platanias 73014, Chania, Crete, Tel: +30 2821 038800
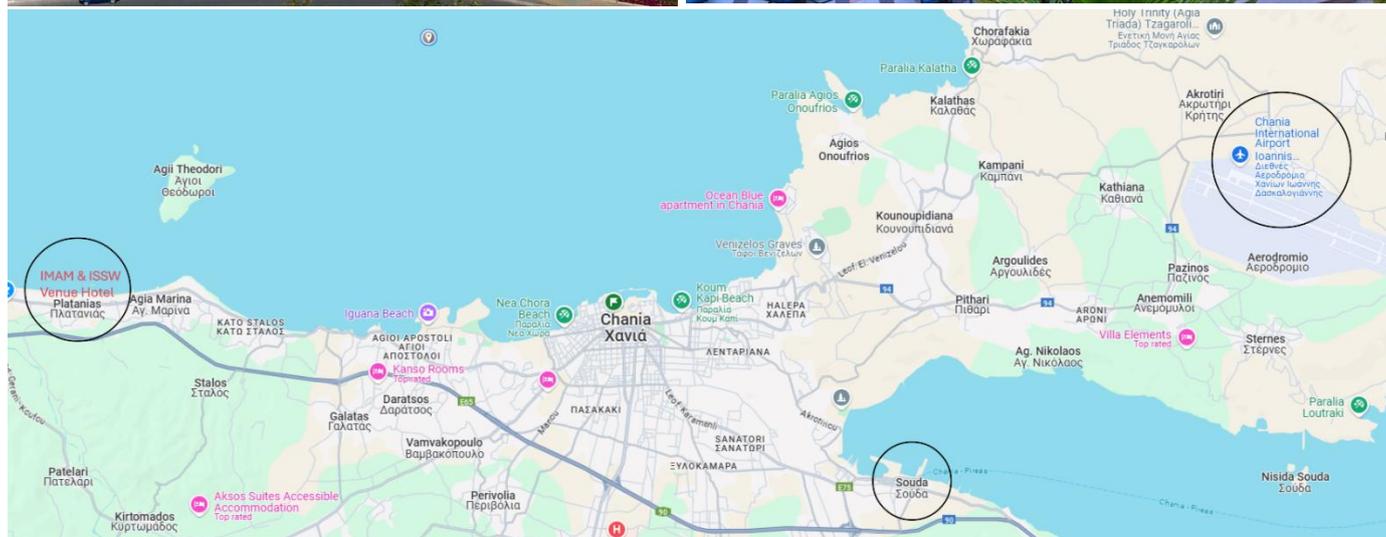
HOW TO REACH

A) FROM CHANIA INTERNATIONAL AIRPORT

The KTEL bus stop is located on the east side of the terminal, outside the Departures zone. The total travel time from Chania Airport to Platanias is around 60 to 70 minutes including a change at Chania's Main Bus Station. Unfortunately, there is no direct bus service from the Airport to Platanias. It takes 25 minutes the coach to reach the Chania Main Bus Station, the ticket costs 2.50. It can be bought online, from the ticket kiosk right next to the bus stop, or from the driver. At the Chania Main Bus Station, it is required to change to one of the frequent buses heading to Platanias and to further destinations, typically arriving in Platanias in about 20 minutes. The ticket costs 2.20.

A taxi ride from the Airport to Platanias is approximately 40 minutes and costs about 45€ (tipping is optional).

B) FROM SOUDA PORT

There is no direct bus line from the Port of Souda to Platanias. The bus stop is located right outside the Port. Bus line 13 connects the Port to Chania. The ticket costs €1.60 (€2.50 if bought inside the bus) and the travel is 15 to 30 minutes. At Chania Main Bus Station is needed to transfer to a bus heading to Platanias (cost €2.20). The total time, including transfers, is approximately 50 minutes.

A Souda Port – Platanias taxi ride would cost €20 - €25 and the travel time is 20 to 25 minutes.

REGISTRATION

Registration will take place at MIRONI Hall (Porto Platanias Beach Resort & Spa) on Sunday 28th of September, between 17:00 and 19:30. It will be continued in the morning of Monday 29th of September, between 08:15 and 09:00. Late arrivals will still be able to register.

CONTACT PERSONS

Kostas Spyrou (IMAM 2025 & ISSW 2025 chairman): +30 6974450695
Nikos Themelis (IMAM 2025 secretary): +30 6976602238
Lilia Sbokos (organizational support): +30 6944260900

EMERGENCY NUMBERS

European-wide emergency line (all services)**: 112** — connects you to police, fire, ambulance, coast guard, etc., anywhere in the EU. Works even without a SIM card and while the phone is locked.

Police (Hellenic Police)**: 100**; Fire Brigade: 199; Ambulance/National Emergency Medical Service: 166; Coast/Harbor Police: 108.

Tourist Police**:** Short-code 171 (also reachable via local number +30 28210 25931**)** — helpful for visitors and staffed with English/French/German speakers.

Nearest Pharmacy: Pontikakis, Old National Road 164, Platanias, tel: +30 2821068585, plataniaspharmacy.gr

INFORMATION ABOUT THE VENUE
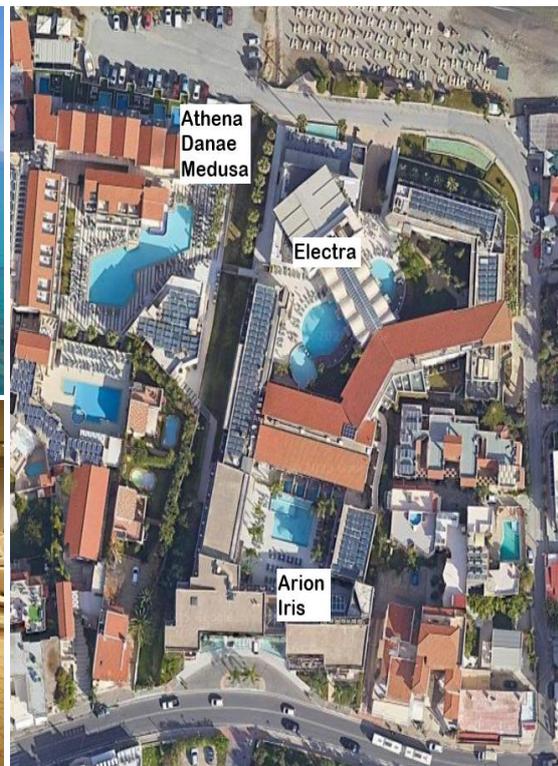
Platanias is an old village located on the northwest coast of Crete, 15 km west of the city of Chania. It owes its name to the many plane trees that are scattered along the shore of a local river crossing the region. Its beautiful long sandy beach and the amenities offered have established it as one of the top touristic attractions of Crete.

The hotel venue is Porto Platanias Beach Resort & Spa**,** a 5-star resort by the sea featuring modern conference facilities and elegant accommodation. Plenary sessions will be held in the room Electra, which can hold up to 270 delegates. Breakout sessions will be held in the rooms Athina and Danai each with capacity for 100 delegates. The first day of ISSW will be held in Iris with capacity for 80 delegates.

Chania is the second largest city in Crete, with rich history and a strong Cretan character. Its old town, full of Venetian and Ottoman influences, offers a mix of narrow streets, historic buildings, and a lively and charming harbor which was built by the Venetians in the 14th century when Chania (then known as "La Canea") was an important trade center in East Mediterranean. Modern Chania is a lively and dynamic city, home to a few academic and research institutions (including a technical university), which make it a fitting location for an international conference. Its setting—between the sea and the White Mountains—and Mediterranean weather, offers atmosphere conducive to scholarly exchange.

In late September - early October, Platanias and Chania have warm days around 25 °C, comfortable evenings at 20 - 22 °C, and sea temperatures near 25 °C. Rain is minimal - typically 2 to 3 light showers across the month, totalling under 30 mm. Visitors can expect around 10 hours of sunshine per day, with moderate humidity (~65 %) and gentle sea breezes.

IMAM 2025 AND ISSW2025 PROGRAM SYNOPSIS

Time / Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
08.15-08.30		Registration			ISSW Opening ceremony	
08.30-09.00		Registration	5.1 Alternative fuels/decarbonisation; 5.2 Renewable energy; 5.3 Logistics	9.1 Alternative fuels/decarbonisation; 9.2 Maneuvering and course-keeping; 9.3 Design	11.1 Resistance/propulsion; 11.2 Structures; 11.3 Hydrodynamics; ISSW 1: Roll dynamics	15.1 Safety; 15.2 Operations; ISSW 5: Mathematical modeling and dynamics
09.00-09.30		1 IMAM Opening ceremony	5.1 Alternative fuels/decarbonisation; 5.2 Renewable energy; 5.3 Logistics	9.1 Alternative fuels/decarbonisation; 9.2 Maneuvering and course-keeping; 9.3 Design	11.1 Resistance/propulsion; 11.2 Structures; 11.3 Hydrodynamics; ISSW 1: Roll dynamics	15.1 Safety; 15.2 Operations; ISSW 5: Mathematical modeling and dynamics
09.30-10.30		1 Keynote lectures	5.1 Alternative fuels/decarbonisation; 5.2 Renewable energy; 5.3 Logistics	9.1 Alternative fuels/decarbonisation; 9.2 Maneuvering and course-keeping; 9.3 Design	11.1 Resistance/propulsion; 11.2 Structures; 11.3 Hydrodynamics; ISSW 1: Roll dynamics	15.1 Safety; 15.2 Operations; ISSW 5: Mathematical modeling and dynamics
10.30-11.00		Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11.00-12.30		2.1 Design; 2.2 Seakeeping; 2.3 Operations	6.1 Maneuverability; 6.2 Electrification; 6.3 Design	10.1 Panel IACS Rec. 34/Rev.2; 10.2 Altern. fuels/decarbonisation; 10.3 Shipyard organisation	12.1 Resistance/propulsion; 12.2 Structures; 12.3 Human factors; ISSW 2: Damage stability	16.1 Alternative fuels/decarbonisation; 16.2 Marine engineering; ISSW 6: Design and operational safety
12.30-13.00		2.1 Design; 2.2 Seakeeping; 2.3 Operations	6.1 Maneuverability; 6.2 Electrification; 6.3 Design	Cultural tour: Visit to the Agia Triada Tsagarolon Monastery and to the Archaeological site of Aptera	12.1 Resistance/propulsion; 12.2 Structures; 12.3 Human factors; ISSW 2: Damage stability	IMAM Closure; ISSW 6: Design and operational safety
13.00-14.30		Lunch	Lunch	Cultural tour (cont.)	Lunch	Lunch
14.30-16.00		3.1 Stability; 3.2 Structures; 3.3 Operations	7.1 Alternative fuels/decarbonisation; 7.2 Hydrodynamics; 7.3 Autonomy/digitalisation	Cultural tour (cont.)	13.1 Autonomy/digitalization; 13.2 Alternative Fuels/decarbonisation; 13.3 Renewable Energy; ISSW 3: Special vessels	ISSW 7: Second Generation Intact Stability Criteria
16.00-16.30		Coffee break	Coffee break	Cultural tour (cont.)	13.1 Autonomy/digitalization; 13.2 Alternative Fuels/decarbonisation; 13.3 Renewable Energy; ISSW 3: Special vessels	Coffee break
16.30-17.00	Registration	4.1 Stability; 4.2 Marine engineering; 4.3 Operations	8.1 Alternative fuels/decarbonisation; 8.2 Seakeeping; 8.3 Renewable energy	Cultural tour (cont.)	14.1 Offshore/Coastal; 14.2 Resistance/propulsion; 14.3 Renewable energy; ISSW 4: Probabilistic methods	ISSW 8: Emerging technologies
17.00-18.00	Registration	4.1 Stability; 4.2 Marine engineering; 4.3 Operations	8.1 Alternative fuels/decarbonisation; 8.2 Seakeeping; 8.3 Renewable energy	Cultural tour (cont.)	14.1 Offshore/Coastal; 14.2 Resistance/propulsion; 14.3 Renewable energy; ISSW 4: Probabilistic methods	ISSW 8: Emerging technologies
18.00-18.15	Registration			Cultural tour (cont.)		ISSW Closure
18.15-18.45	Registration		IMAM Executing Committee meeting and IMAM General Assembly	Cultural tour (cont.)		ISSW Standing Committee meeting
18.45-19.30	Registration		IMAM Executing Committee meeting and IMAM General Assembly	Cultural tour (cont.)	Visit to Chania Old Harbor and Conference dinner	ISSW Standing Committee meeting
19.30-20.00	Welcome Reception		IMAM Executing Committee meeting and IMAM General Assembly	Cultural tour (cont.)	Visit to Chania Old Harbor and Conference dinner	
20.00-21.30	Welcome Reception				Visit to Chania Old Harbor and Conference dinner	
21.30-23.00					Visit to Chania Old Harbor and Conference dinner	

COMBINED PROGRAM OF IMAM 2025 AND ISSW 2025

Time	Sunday September 28th
17:00-19:30	**Registration (Mironi Hall)**
19:30-21:30	**Welcome Reception (Roof Garden)**

Time	Monday September 29th
09:00-10:30	**Session 1: IMAM 2025 Congress opening ceremony and keynote lectures (Electra)** *Chair: Kostas Spyrou*
09:00-09:30	**IMAM 2025 Opening speeches (Electra)**
09:30-10:00	Keynote lecture 1 (introduced by Kostas Spyrou) Trends in naval hydrodynamics **Arthur Reed**
10:00-10:30	Keynote lecture 2 (introduced by Kostas Belibassakis) Developments in the FOWT supporting structures technologies **Spyros Mavrakos**
10:30-11:00	Coffee break (Mironi Hall)

11:00-13:00	**Session 2.1: Ship Design (Electra)** *Chair: Apostolos Papanikolaou*	**Session 2.2: Seakeeping (Athina)** *Chair: Kostas Belibassakis*	**Session 2.3: Ship Operations (Danai)** *Chair: Jasna Prpic-Orsic*
11:00-11:30	Automated CFD tools for the design of marine propulsion systems (*196*) **Vladimir Krasilnikov, Benedetto Di Paolo**	Summary of the Generic Prismatic Planing Hull physical scaled model tests (336) **Lawrence Snyder, Carolyn Judge, Evan Lee**	Maritime transport system simulation for sustainable winter navigation (179) **Aleksander Kondratenko, Konstantin Kamberov, Pentti Kujala**
11:30-12:00	Multi-Fidelity shape optimiza-tion for bow retrofitting of a RoRo cargo ship (247) **Andrea Serani, Alessandro Del Buono, Matteo Diez, Riccardo Broglia, Alessandro Maione, Cosim Cervicato**	Comparison of linearization approaches to ship motions and loads (242) **Piotr Bandyk, Frans van Walree**	On the effectiveness of trim optimization: a case study on a CON-RO vessel (303) **Maria De Carlini, Simone Mancini, Vincenzo Sorrentino, Marco Altosole, Rasul Niazmand Bilandi, Andrea D'Ambra, Dario Bocchetti**
12:00-12:30	Multi-objective CFD optimisation to demonstrate the potential of aft-ship replacement as an extreme retrofitting option in IWT (282) **Jan Kaufmann, Simon Hauschulz, Benjamin Friedhoff**	Comparison of motions and slamming loads for a semi-displacement vessel using model testing and numerical simulation (337) **Ahmed Ibrahim, Carolyn Judgea, Kenneth Weems**	Quantification and propagation of weather forecast uncertainty for ship weather routing (276) **Marijana Marjanović, Jasna Prpić-Oršić, Marko Valčić**
12:30-13:00	Hydrodynamic design assessment of ESDs in straight-ahead and drift conditions (263) **Dimitris Ntouras, Konstantinos Kostalas, Andreas Arapakopoulos, Hannes Renzsch, Stefan Harries, Reuben D'Souza, Vassilios Zagkas**	A numerical investigation of vertical accelerations of WAP vessels in regular waves (329) **Manolis Angelou**	Digital twin framework to enable green ship operations towards zero emission vessels – TwinShip approach (295) **Lokukaluge Prasad Perera, Kostas Belibassakis, Dumitru Roman, Anders Oster, Lu Ruihua**

13:00 -14.30	Lunch (Main restaurant – 1st floor)		
14:30 -16:00	**Session 3.1: Stability** (Electra) *Chair: Premyslaw Krata*	**Session 3.2: Ship Structures** (Athina) *Chair: Panos Yannoulis*	**Session 3.3: Ship Operations** (Danai) *Chair: Pentti Kujala*
14:30-15:00	Pros and cons of Second Generation Intact Stability Criteria (171) **Alberto Francescutto**	Uncertainty quantification in ultimate strength in ship hull structures (231) **Panagiotis Sgouros-Niarchos, Konstantinos Anyfantis**	Overview of inertial sensor calibration methods in Ocean Engineering: Trends and challenges (215) **Ivana Cabrijan, Dusko Pavletic, Jasna Prpic-Orsic, Elvis Krulcic**
15:00-15:30	A comparative study on experimental methods of parametric rolling in irregular waves (266) **Dai Fujiwara, Atsuki Ikegami, Keiji Katsumura, Sha Hao, Masahiro Sakai**	Uncertainty quantification in composite material driveshafts' mechanical response (292) **Elias Bilalis, Konstantinos Anyfantis , Nicholas Tsouvalis**	Integrating WASP technology with optimal weather routing for enhanced navigation (273) **Nikos Themelis, Ageliki Kytariolou, Sabino Chapero Baranda, Simone Saettone, Nikos Tsoulakos**
15:30-16:00	Flooding simulations in grounding damages by use of a 3D SPH method (221) **George Dafermos, George Zaraphonitis**	On physics-informed statistical reduced-order model for response and peaks of ship vertical bending moment in irregular waves (332) **Vladas Pipiras, Vadim Belenky, Kenneth Weems, Themistoklis Sapsis**	Optimal thruster location for increased DP operability (167) **Francesco Mauro, Gennaro Rosano, Ermina Begovic**
16:00-16:30	Coffee break (Mironi Hall)		
16:30-18:00	**Session 4.1: Stability** (Electra) *Chair: Alberto Francescutto*	**Session 4.2: Marine Engineering** (Athina) *Chair: Selma Ergin*	**Session 4.3: Ship Operations** (Danai) *Chair: Theodoros Gerostathis*
16:30 -17:00	Sailing boat dynamical behaviour in quartering following seas and wind (330) **Ioannis G. Tigkas, Epifanios D. Denaxas, Manolis Angelou**	Prediction of brake power and rate of revolution for bulk-carriers based on machine learning (180) **Marko Valčić, Ivana Martić, Nastia Degiuli, Carlo Giorgio Grlj, Mingyang Zhang**	Assessing the impact of operating profile on ship energy system analysis (272) **Leonidas-Nektarios Tsaganos, George Dimopoulos**
17:00 -17:30	The hydrodynamic lift effect on pure loss of stability prediction based on Vortex Lattice Method (246) **Jinya Zhang, Ning Ma, Jianwen Duan, Qiqi Shi**	Big dataset feature diagnostics extraction in a physical drivetrain system using the Advanced Proper Orthogonal Decomposition Transform for tensors (234) **Konstantinos Liontos, Ioannis Georgiou**	An investigation of the impact of biofouling on hull and propeller surfaces on ship powering requirement (254) **Jun Yuan Sin, Paresh Halder, Shukui Liu**
17:30 -18:00	Non-Gaussianity, Discretization and their Consequences for Uncertainty Quantification in Longuet-Higgins Model of Random Waves (333) **Vladas Pipiras, Kenneth Weems, Vadim Belenky**	Laser-cladded coatings for marine shafts: Microstructural analysis of AISI 410L and AISI 410L/AISI 4140 Layers on EN 42CrMo4 Steel (188) **Stavros Chionopoulos, Antonios Spyridakos**	Heading control of the DARPA Suboff with PID-based CFD (210) **Duygu Ünlü, Cihad Delen**

Time	Tuesday September 30th		
08:30 -10:30	**Session 5.1: Alternative Fuels and Decarbonization (Electra)** *Chair: Alessandro Maccari*	**Session 5.2: Renewable Energy (Athina)** *Chair: Dimitrios Koubogiannis*	**Session 5.3: Logistics (Danai)** *Chair: Iraklis Lazakis*
08:30 -09:00	Performance evaluation of tetramethyl- guanidine - based ionic liquids in carbon capture and storage systems for ships (219) **Engin Güler, Selma Ergin**	Experimental testing of an offshore wind platform under the combined effect of the wind turbine and irregular waves (278) **Marta Cabaleiro Figueroa, Lucía Santiago Caamaño, Milica Vidić, Marcos Míguez González, Anne Gosset, José Manuel Ciriano Palacios**	Evolution(s) of European inland vessel fleets (214) **Igor Bačkalov, Marko Josipović, Cyril Alias**
09:00 -09:30	CO_2 single lobe type C tank cryogenic modelling (291) **George Charvalos, George Dimopoulos**	Investigation of energy production of an offshore wind farm using FAST. Farm's dynamic wake meandering model and FLORIS (301) **Muhammad Juanda Putra, Elif Oğuz, Nilay Sezer Uzol**	On the energy islands and Green corridors: Green maritime and critical materials challenges (228) **Mihaela Ibrion, Amir Nejad**
09:30 -10:00	Framework for evaluating energy demands in fuel cell hydrogen-powered ships (244) **Spyridon Brouzas, Mehdi Zadeh, Benjamin Lagemann**	Assessment of the wave and offshore wind energy potential along two coastal maritime routes at the Aegean Sea (177) **Takvor Soukissian, Natalia Koutri**	Establishing green ferry corridors between Croatia and Italy: The potential of alternative fuels and slow-steaming (257) **Nikola Vladimir, Maja Perčić, Marija Koričan, Momir Sjerić, Pero Vidan, Evangelia Piteni, Danilo Nikolić, Predrag Janković**
10:00 -10:30	A regionalised life-cycle perspective of ammonia production as a maritime fuel (185) **Rahul Ravi, Kristine Marie Embretsen, Fasil Ayelegn Tassew, Oleksii Ivashenk**	Environmental contour assessment for floating offshore wind turbines installation in the Mediterranean Sea (211) **Elisa Marchelli, Francesco De Leo, Giovanni Besio, Cesare Mario Rizzo**	Using AIS data to analyze and optimize vessel operations for offshore wind farm maintenance (250) **Komeyl Baghizadeh, Julia Pahl, Marie Lützen, Niels Gorm Maly Rytter**
10:30 -11:00	Coffee break (Mironi Hall)		
11:00 -13:00	**Session 6.1: Ship Maneuverability (Electra)** *Chair: Kevin Maki*	**Session 6.2: Electrification (Athina)** *Chair: Ioannis Prousalidis*	**Session 6.3: Ship Design (Danai)** *Chair: Amir Nejad*
11:00 -11:30	Dynamic simulation of a way-point - based decision support system for the collision avoidance of marine vessels (225) **Raphael Zaccone, Nicola Sabatino, and Michele Martelli**	Ship electrification technologies (309) **Antonios Sideris, Ioannis Alonistiotis, Antonios Kladas, Dimitrios Lyridis**	An integrated methodology for the prediction of ship's calm water resistance using computational fluid dynamics simulations and artificial neural networks (314) **Aphrodite Kanellopoulou, George Zaraphonitis**
11:30 -12:00	Assessment of ship maneuvera-bility capacities depending on environmental conditions in sheltered waters (320) **Silvia Donnarumma, Tomaso Gaggero, Diego Villa**	Improving the ship performance via electrical means (269) **John Prousalidis, Elias Sofras, Nikos Themelis, Maria Carmela Di Piazza, Marcello Pucci, Alessandro Iafrati**	Optimization of tanker design for wing sail propulsion (300) **Timoleon Plessas, Aphrodite Kanellopoulou, Apostolos Papanikolaou, George Zaraphonitis**

12:00 -12:30	Thrust reversal and beyond: Examining the crash astern maneuver and advanced braking approaches for ship (252) **John Kokarakis, George Andreadis**	Comparison of alternative motor topologies for more electric ship traction applications (306) **Eleftherios Karamanis, Antonios Sideris, Ioannis Alonistiotis, Antonios Kladas, John Prousalidis**	Application of neural networks in early-stage ship design for stability evaluation using IMO Second Generation Criteria (207) **Karolina Bierkowska, Tomasz Hinz, Grzegorz Mazerski, Przemysław Krata**
12:30 -13:00	Development and validation of a submarine maneuverability prediction code for design (262) **Lorenzo Bertè, Diego Villa, Giorgio Mazzarello, Francesco Carmone, Michele Viviani, Benedetto Piaggio**	Economic assessment of MCFC and WHRS integration for ship electrification: A bulk-carrier case study (218) **Onur Yuksel, Eduardo Blanco-Davis, Viknash Shagar, David Hitchmough, Andrew Spiteri, Maria Carmela Di Piazza, Marcello Pucci, Nikolaos Tsoulakos, Jin Wang**	Web-based decision support for retrofitting solutions (261) **Thomas Koch, Andreas Roppelt, Stefan Harries, Hannes Renzsch, Fabian Thies**
13:00 -14:30	Lunch (Main restaurant – 1st floor)		
14:30 -16:00	**Session 7.1: Alternative Fuels and Decarbonization (Electra)** *Chair: J.O. de Kat*	**Session 7.2: Hydrodynamics (Athina)** *Chair: Ahmet Ergin*	**Session 7.3: Autonomy and Digitalization (Danai)** *Chair: Nikos Themelis*
14:30 -15:00	Replacing fossil Diesel for all European inland waterway transport: A Prospective pathway analysis on remaining emissions and costs (172) **Florin Thalmann, Elimar Frank**	Hydrodynamic analysis of a container ship in shallow waters under static drift conditions (213) **Shawn Aram, Philipp Mucha**	Adaptive neuro-fuzzy Inference for predicting control inputs in maritime autonomous surface ships maneuvers (289) **Hosna Namazi, Lokukaluge Prasad Perera**
15:00 -15:30	Availability and bunkering market of green and blue ammonia for maritime propulsion (195) **Hendrik Brinks, Oleksii Ivashenko, Bingjie Guo**	Identification and assessment of the error sources in wave generation in a Numerical Wave Tank (313) **Dimitrios Tsoumpelis, Kostas Spyrou**	Operational safety and cybersecurity in autonomous vessel mooring and cargo handling: A cascading effects approach (319) **Anastasia Danopoulou, Nikolaos Ventikos, Vasilis Podimatas, Panagiotis Georgantopoulos, Panagiotis Siokouros**
15:30 -16:00	A zero-emission propulsion system for a sustainable whale watching catamaran (274) **Luca Maloberti, Raphael Zaccone, Martina Angius, Michele Martelli**	Rim-driven pumpjet design by RANS-based optimization (297) **Marco Lugaresi, Stefano Gaggero**	The use of the LoRaWAN wire- less communication system in maritime transport (290) **Tomasz Neumann**
16:00 -16:30	Coffee break (Mironi Hall)		

16:30 -18:00	Session 8.1: Alternative Fuels and Decarbonization (Electra) *Chair: Anna Zervaki*	Session 8.2: Seakeeping (Athina) *Chair: Gregory Grigoropoulos*	Session 8.3: Renewable Energy (Danai) *Chair: Thomas Mazarakos*
16:30 -17:00	Methodology for early design stage comparative lifecycle emissions assessment with alternative fuels (235) **Dale Pederson, Dimitrios Konovessis**	Uncertainty of criteria limits of ship operability in rough sea (255) **Jasna Prpić-Oršić, Odd Magnus Faltinsen, Ivan Sulovsky, Marijana Marjanović**	Comparative assessment of second-order wave load calculations on a free-floating vertical compound cylindrical wave energy converter (183) **Thomas Mazarakos**
17:00 -17:30	ROPAX fleet renewal: Environmental index analysis (178) **Elias Altarriba, Sirpa Rahiala, Taru Tanhuanpää, Marko Piispa**	Comparative analysis of estimation methods for wave excitation moment of modern yachts (238) **Gennaro Rosano, Ermina Begovic, Pietro Cappiello, Federico Evangelista**	Second-order diffraction loads on OC3 FOWT by comparing theoretical, numerical and CFD methods (304) **Panagiotis Delizisis, Dimitrios Konispoliatis, Ioannis Chatjigeorgiou**
17:30 -18:00	A multi-criteria decision-making approach for the assessment of various decarbonization pathways considering multiple SAFs, powertrain and vessel type configurations (285) **Konstantinos A. Sykaras, Dimitrios Vlachos, Leonidas Tsaganos, Georgios Charvalos, Georgios Rossopoulos, Georgios Kouvaras, Dionysios Markatos, Astrinos Z. Papadakis, Christos Papadopoulos, Angelos Filippatos, George Dimopoulos**	On the application of the smart algorithm for excessive roll motion avoidance of ocean-going vessels in relevant scenarios (271) **Maria Acanfora, Flavio Balsamo, Fabio De Luca, Filippo Scamardella**	Development of a semi-Lagrangian-splitting ocean model: Extension to abrupt bathymetries and wave-structure Interactions (298) **Andreas Alexandris-Galanopoulos, George Papadakis**

Time	Wednesday October 1st		
08:30 -10:30	Session 9.1: Alternative Fuels and Decarbonization (Electra) *Chair: John Kokarakis*	Session 9.2: Maneuvering and Course-keeping (Athina) *Chair: Kenneth Weems*	Session 9.3: Ship Design (Danai) *Chair: Vedran Slapničar*
08:30 -09:00	Impact of CII regulations on vehicle carriers (161) **Petar Georgiev, Yordan Garbatov, Dimitar Yalamov**	A propeller model for numerical simulation of transient maneuvers (307) **Eric Heilshorn, Adam Sak, Bradford G. Knight, Kevin Maki**	Down the RABeT hole: An investigation into the use of a beachability assessment tool (321) **Sam Murphy, Austin Shaeffer, Tim McIntyre, Alex Wiggins**
09:00 -09:30	Development of KPIs and QFD method for Evaluating Alternative Maritime Fuels (240) **Efstathios Platypodis, Dimitrios Lyridis, Evanthia Kostidi, Alessandro Maccari**	Identification of broaching in irregular waves (249) **Samuel Edwards, Vadim Belenky**	Inside-out: beyond the traditional boundaries of interior yacht design (245) **Mariateresa Campolongo, Massimo Musio-Sale**
09:30 -10:00	Life cycle analysis of e-methanol use produced by an unmanned power to methanol production plant, in marine engines (208) **Christodoulos Savva, Christos Vlachokostas, Dimitrios Kolokotronis, Leonidas Ntziachristos**	Robustness to hydrodynamic model assumptions of cumulative broaching predictions (326) **Vicky Margari, Kostas Spyrou**	A preliminary design model of merchant ships by adjusting the empirical methods (299) **Vedran Slapničar, Andrija Ljulj**

Time			
10:00 -10:30	Evaluation of sizing and dimen-sioning of alternative fueled ship energy systems: case study of liquid hydrogen storage system for bulk-carriers (243) **Spyridon Brouzas, Mehdi Zadeh, Benjamin Lagemann**	Assessment of the application of linear and non-linear Froude-Krylov forces modelling for surging and surf-riding in bi-chromatic following waves (308) **Katarzyna Warnke-Olewniczak, Zbigniew Macikowski, Przemyslaw Krata**	Innovative design concept of the connection between the vessel shore station and port wharf (216) **Karol Niklas, Maciej Reichel, Ewa Marcinkiewicz**
10:30 - 11:00	Coffee break (Mironi Hall)		
11:00 -12:30	**Session 10.1: IACS Rec. 34/Rev.2 (Electra)** *Chair: J.O. de Kat*	**Session 10.2: Alternative Fuels and Decarbonization (Athina)** *Chair: Flavio Balsamo*	**Session 10.3: Shipyard Organization (Danai)** *Chair: Petar Georgiev*
11:00 -11:30	Panel Discussion **Havard Austefjord, Quentin Derbanne Dimitris Monioudis, Chris Waddington**	Investigating the cooperation perspectives in shore-side electricity implementation between Greece and Italy (268) **John Prousalidis, Damiano Landi, Anastasios Manos**	ESY Platform: Assessing and improving sustainability of ship production (294) **Thomas Koch, Andreas Roppelt**
11:30 -12:00		Pollutant emissions assessment of a marine methanol engine by numerical simulation (264) **Filippo Scamardella, Marco Palomba, Roberta De Robbio, Flavio Balsamo, Maria Christina Cameretti, Marco Altosole**	Advancing shipyard efficiency through emissions control and LCA methodologies (325) **Dimitris Lyridis, Jason Markatos, Dimitris Polyzogopoulos, Marc Bonazountas**
12:00 -12:30		A multi-criteria analysis of alternative fuels for maritime operations: Balancing space efficiency, sustainability, and financial feasibility (239) **Emmanouil Kamilakis, Vilmar Æsøy, Ann Rigmor Nerheim**	Neorio 2030: The Syros Shipyard as a catalyst for the island's development (174) **Nikolaos Manos, Efi Dimopoulou**
12:45 -19:00	Cultural tour (pick up lunch box at 12:30 at Mironi Hall)		

Time	Thursday October 2nd			
08:15 -08:30				**ISSW Opening ceremony** *Chairs: Kostas Spyrou, Dimitrios Konovessis*
08:30 -10:30	**Session 11.1: Resistance and Propulsion (Electra)** *Chair: Massimo Figari*	**Session 11.2: Ship Structures (Athina)** *Chair: Yordan Garbatov*	**Session 11.3: Hydrodynamics (Danai)** *Chair: Manolis Angelou*	**ISSW Session 1: Studies of Roll Dynamics (Iris)** *Organisers: Luis Perez-Rojas, Toru Katayama*
08:30 -09:00	Validation study of self-propulsion performance for a bulk-carrier at full-scale (169) **Carlo Giorgio Grlj, Nastia Degiuli, Ivana Martić**	Corrosion state diagnosis of ship hull structures through strain sensing (176) **Ilias Makras, Nicholas Silionis, Konstantinos Anyfantis**	Application of the nodal IP discontinuous Galerkin method on unsteady low-Mach FSI problems: Vortex-induced vibrations of an elastically - constrained cylinder (296) **Spiros Zafeiris, Panagiotis Makridis, George Papadakis**	Numerical investigation of avoiding parametric roll resonance through acceleration and deceleration **Hasan Islam Copuroglu, Emre Pesman, Toru Katayama**

09:00 -09:30	Preliminary self-propulsion simulations of a displacement hull with different propulsion arrangements (302) **Vincenzo Sorrentino, Fabio De Luca, Simone Mancini, Claudio Pensa, Luigi Ombrato**	Experimental and numerical modal analysis of vibrating circular plates interacting with fluid in a rigid cylindrical tank (187) **Ibrahim Tugrul Ardic, Erden Yildizdag, Ahmet Ergin**	Pressure pulses due to bubble cavitation collapses on a NACA 0015 hydrofoil (265) **Giovanni Franzosi, Afaq Ahmed Abbasi, Michele Viviani, Luca Savio, Giorgio Tani**	Experimental investigation of the effect of wave steepness on a damaged Ro-Pax ship model under regular waves condition **Mehmet Zeki Sener, Hyeon Kyu Yoon, Thi Thanh Diep Nguyen, Ercan Kose**
09:30 -10:00	Numerical assessment of a dynamic pitching bow wing for resistance reduction in waves (324) **Konstantinos Rekoumis, Dimitris Liarokapis, George Papadakis, Kostas Belibassakis**	A review of material behaviour at cryogenic conditions towards their application in membrane-Type LH2 cargo containment systems (310) **Stavroula Maritsa, Theodoros Mavrozoumis, Efstathios Platypodis, Anna Zervaki, Nicholas Tsouvalis**	Generation of overlapping structured grid blocks about a ship's appendages (206) **Stylianos Polyzos, George Tzabiras**	Effects of forward speed on bilge-keel roll damping **Naofumi Yoshida, Hasan Islam Copuroglu, Toru Katayama**
10:00 -10:30	A new state-of-the-art cavitation tunnel – ITUKAT (237) **Burcu Erbaş Öz, Selahattin Özsayan, Mehmet Delikan, Erdinç Kara, Aras Çetinkaya, Çağrı Aydın, Çağatay Sabri Köksal, Uğur Oral Ünal, Emin Korkut, Ömer Gören**	Multilevel FE modeling for fracture mechanics-based fatigue life assessment of ship hull structures (233) **Sotiris Panagiotopoulos, Konstantinos Anyfantis**		An investigation of viscous effects on roll damping of different scaled ships **Nguyen Thi Ha Phuong, Tomoki Taniguchi, Toru Katayama**
10:30 -11:00	Coffee break (Mironi Hall)			
11:00 -13:00	**Session 12.1: Resistance and Propulsion (Electra)** *Chair: Nastia Degiuli*	**Session 12.2: Ship Structures (Athina)** *Chair: Chris Leontopoulos*	**Session 12.3: Human Factors (Danai)** *Chair: Nikos Ventikos*	**ISSW Session 2 Damage Stability (Iris)** *Organisers: Dracos Vassalos, Hendrik Bruhns*
11:00 -11:30	Validation of CFD methodology for the prediction of propulsion performance of inland navigation vessels (229) **Vladimir Krasilnikov, Benjamin Friedhoff, Kelvin Eloho**	Evaluating the effect of geometric parameters on the holding time of an ammonia trilobe tank (316) **Georgios Charvalos, Zoi Chatzaki, Georgios Dimopoulos, Christos Papadopoulos, Nicholas Tsouvalis**	Social constraints and seasickness: Coping behaviours and attitudes among offshore windfarm workers - A mixed-methods study (267) **Andrew Fenn, Lisa Loloma Froholdt**	Bottom damage stability issues on hopper dredgers **Arie de Jager**

11:30 -12:00	A validation study of open water characteristics for fixed and controllable pitch propellers (186) **Carlo Giorgio Grlj, Nastia Degiuli, Ivana Martić, Ivan Heinrich, Luka Berić, Tomislav Staroveški**	Liquid hydrogen cargo containment systems: A focus on metallic barrier materials (317) **Stavroula Maritsa, Ioannis Tzanetos, Maciej Szczerba, Magdalena Bieda, Joanna Wojewoda-Budka, Anna D. Zervaki**	Assessment of motion sickness according to ISO standards onboard smaller working vessels (181) **Elma Ramic, Marie Lützen**	Alternative crashworthy ship designs for enhancing safety and environmental performance **Dracos Vassalos, Francesco Mauro, Jeom Kee Paik**
12:00 -12:30	Hydroelastic analysis of passively controlled flexible foil-thrusters (251) **Dimitra Anevlavi, Kostas Belibassakis**	Gaps in international codes and standards regarding material requirements and testing in cryogenic conditions for liquid hydrogen containment systems (318) **Theodoros Mavrozoumis, Stavroula Maritsa, Anna Zervaki, Nicholas Tsouvalis**	The development and demonstration of a human factors risk model (HFRM) for a Ship grounding on coastal/shallow waters (232) **Panagiotis Sotiralis, Manolis Annetis, Vassilis Podimatas, Nikolaos Ventikos, Konstantinos Louzis**	A rational framework for life-cycle damage stability and flooding risk management of passenger ships **Dracos Vassalos, Francesco Mauro**
12:30 -13:00	Underwater radiated noise measurements in reverberant atmospheric tanks. A case study for model-scale marine propellers (226) **Adrian Portillo-Juan, Laura Botero-Bolivar, Luis Perez-Rojas, Simone Saettone, Esteban Ferrer**	Electrochemical characteristics of welded AH36 steel exposed to sodium chloride corrosion (230) **Isidoros Iakovidis, Dimitra Gourgioti , Stavros Chionopoulos, Paraskevi Pantazopoulou Stamatina Theohari**	VR-based simulator platform utilization for training remote vessel operators (283) **Muhammad Adnan, Lokukaluge Prasad Perera**	Stochastic dynamic analysis of a damaged vessel capsizing in random beam seas by path integration method **Jianwen Duan, Ning Ma, Qiqi Shi, Jinya Zhang**
13:00 -14:30	Lunch (Main restaurant – 1st floor)		
14:30 -16:00	**Session 13.1: Autonomy and Digitalization (Electra)** *Chair: Ioannis Tigkas*	**Session 13.2: Alternative Fuels and Decarbonization (Athina)** *Chair: Nikos Liapis*	**Session 13.3: Renewable Energy (Danai)** *Chair: Takvor Soukissian*	**ISSW Session 3: Stability and Safety of Special Vessels (Iris)** *Organisers: Gabriele Bulian, Ning Ma, Igor Backalov*
14:30 -15:00	Development and evaluation of an autonomous ship model in the Towing Tank of NTUA (275) **Stavros Papadopoulos-Kouklakis, Dimitris Liarokapis, Eleftherios Loghis, Giannis Trachanas, Gregory Grigoropoulos**	Optimized washwater treatment for sulphur-oxides emission control: A data-driven case study on cruise ship scrubber technology (236) **Massimo Figari, Reza Karimpour, Vincenzo Galati**	Project BAMBOO: Innovations in large-scale offshore floating photovoltaic systems – Ongoing work on regulatory and technological developments (182) **Spyros Hirdaris, Vassilis Zouzoulas, Lotte Holvast, Laura Colomer, William Otto, Mogens Lau**	*Three papers presented sequentially, each followed by a 5-minute Q&A* Floating crane operations, where the IMO rules are dropping the load **René van den Heuvel, Luuk van der Linde**

15:00 -15:30	Interpretable data-driven ship dynamics model: Enhancing physics-based motion prediction with parameter optimization (241) **Christos Papandreou, Michail Mathioudakis, Theodoros Stouraitis, Petros Iatropoulos, Antonios Nikitakis, Stavros Paschalakis, Konstantinos Kyriakopoulos**	Application of the hybrid Membrane - Gas Absorption (MGA) technology for onboard carbon capture and storage (331) **Akrivi Asimakopoulou, Dimitris Koutsonikolas, Triantafyllia Grekou, Kyriakos Fotiadis, George Karagiannakis, Vasileios Karystinos, George Dimopoulos, George Papalambrou, Alvertos Zafet, George Pontikakos, Sotiris Mamalis, George Skevis**	Performance assessment of floating photovoltaic units in offshore and coastal Regions (217) **Alexandros Magkouris, Kostas Belibassakis**	Dynamic stability of helicopters floating in waves **Simon Tödter, Jens Neugebauer, Ould el Moctar, Thomas Schellin** Damage stability assessment of large inland passenger ships using time-domain flooding simulations **Milica Vidić, Nathalie Reinach, Igor Bačkalov, Marcos Míguez González**
15:30 -16:00	Addressing risk in autonomous shipping: A combined parallel STPA and FTA framework (260) **Konstantinos Voutzoulidis, Ioannis Tigkas**	Paving the Way Towards Maritime Decarbonisation: Application of A Risk-Based Certification for Carbon Capture System (184) **Yaseen Adnan Ahmed, Iraklis Lazakis, Vedanjali Polaki, George Mallouppas, Marius Sandru, Torbjørn Pettersen, Oliver McKellar, Alex Cross**	Feasibility Study of Wave Energy Harvesting in Northern Norway (287) **Mahmood Taghavi, Lokukaluge Prasad Perera, Charu Sharma, Pawan Sharma, Yufei Wang**	*General discussion on the three papers of the session*
16:00 -16:30	Coffee break (Mironi Hall)		
16:30 -18:00	**Session 14.1: Offshore and Coastal Engineering (Electra)** *Chair: Marco Altosole*	**Session 14.2: Resistance and Propulsion (Athina)** *Chair: Ahmed Ibrahim*	**Session 14.3: Renewable Energy (Danai)** *Chair: Dusko Pavletic*	**ISSW Session 4: Probabilistic Methods to Ship Stability and Safety (Iris)** *Organisers: Alexander Degtyarev, Vadim Belenky*
16:30 -17:00	A Coupled-mode model for porous breakwaters over variable bathymetry (293) **Theodoros Gerostathis, Kostas Belibassakis**	Large-scale additively manufactured model feasibility study and resistance experiments (338) **Kyle Mosqueda, Joel Park**	Design and analysis of a floating wind turbine for the Kıyıköy region, Türkiye (322) **Muhammed Uçar, Mohamad Hmedi, Emre Uzunoğlu, Elif Oğuz**	Comparison of the Critical Wave Groups method with different extrapolation approaches for direct stability assessment in waves **Kevin Silva, Kevin Maki**
17:00 -17:30	A Study on the acoustic radiation behavior of a semi-submerged cylindrical shell in shallow water using Boundary Element Method (270) **Burak Üstündağ, Sertaç Bulut, Bahadır Uğurlu, Ahmet Ergin**	Parametric study on the effects of fin size and orientation for the modular boss cap fin FLEXCAP (220) **Dimitra Anevlavi, Vasileios Tsarsitalidis**	Towards the study of Flettner Rotor performance: Numerical simulations of turbulent flow around A 2D rotating cylinder (258) **Konstantina Kremi, Evangelos Gogos, Dimitrios Koubogiannis**	Statistics of parametric roll in irregular waves **Reint Dallinga, Rob Grin**

17:30 -18:00	The influence of steepness, water depth and directionality on the crest shape of gravity waves (227) **George Spiliotopoulos, Vanessa Katsardi**	Added wave - resistance reduction by means of a passive flapping-foil thruster (305) **Dimitris Liarokapis, Ioannis Trachanas, Kostas Belibassakis**	Hybrid wave and offshore wind energy production in two islands of the Aegean Sea (170) **Takvor Soukissian, Natalia Koutri**	Prediction of parametric roll of containership in regular and irregular waves using machine learning technique **Jaehak Lee, Yonghwan Kim**
18:45 -23:00	Visit to Chania's Old Venetian Harbor, with an optional tour of the Maritime Museum (permanent exhibition), followed by the Conference Dinner at Chania's Sailing Club			

Time	Friday October 3rd		
08:30 -10:30	**Session 15.1: Safety** (Electra) *Chair: George Dimopoulos*	**Session 15.2: Ship Operations** (Athina) *Chair: Marko Valčić*	**ISSW Session 5: Mathematical Modeling and Dynamics** (Danai) *Organisers: Kostas Spyrou, Ermina Begovic*
08:30 -09:00	Hydrogen dispersion and safety assessment of vent mast releases on LH2 carrier in LH2CRAFT Project (277) **Hayoung Jang, Injun Yang, Byongug Jeong, Peilin Zhou, Haibin Wang, Ana Mesbahi, Insik Hwang, Kyeoungmin Park, Panagiotis Gialelis, Binteng Gu, Lin Yang, Yoon Choi**	Dynamic mode decomposition-based approach for digital twin development in ship performance prediction (288) **Mahmood Taghavi, Lokukaluge Prasad Perera, Ziaul Haque Munim**	*Four papers presented sequentially, each followed by a 5-minute Q&A* On the usefulness of surf-riding experiments conducted at a towing tank with limited capacity **Michal Struk, Przemyslaw Krata**
09:00 -09:30	Hazard identification and risk assessment of compressed hydrogen as a marine fuel in SAFeCRAFT project (284) **Injun Yang, Byongug Jeong, Peilin Zhou, Haibin Wang, Ana Mesbahi, Insik Hwang, Kyeoungmin Park, Hayoung Jang, Yoon Choi, Nicholas Tsouvalis, Christos Papadopoulos, Kyriakos Charalampakis, Eva Kostidi, Astrinos Papadakis, Dimitrios Vlachos, Konstantinos Sykaras, Ioannis Gergis**	Current approaches to airborne noise regulation in Shipping: A review of voluntary Class Notations (311) **Luigia Mocerino, Tomaso Gaggero, Enrico Rizzuto, Massimo Viscardi**	Revisiting the basic model of broaching-to **Vadim Belenky, Kostas Spyrou** Eliciting the bifurcation structure of cumulative broaching-to **Vicky Margari, Kostas Spyrou** Assessment and mitigation of motion instabilities of a towed barge: Phase I **Mohammed Islam, Trevor Harris, Dong Seo, Kent Brett, Thomas Hall, Kevin Krasulak**
09:30 -10:00	Quantitative risk analysis of hydrogen for ship bunkering operations (286) **Olga Aneziris, Ioanna Koromila, George Kosmadakis, Athanasios Stubos**	Quantum machine learning applications in ships: A review (259) **Nikolaos A. Schetakis, Konstantinos Blazakis, George Stavrakakis, John Syllignakis, Fotios Kanellos**	
10:00-10:30	Safety of alternative fuels in shipping: A comprehensive literature review (280) **Ioanna Koromila, Olga Aneziris, Zoi Nivolianitou, Nicoleta Pocitarenco, Marko Gerbec, Vladislav Maraš, Ernesto Salzano**	The recycling of plastic material as an effective action for the protection of the marine environment (253) **Emmanuel Kokarakis, Emmanuel Ladakis, John Kokarakis**	*General discussion on the four papers of the session*

10:30 -11:00	Coffee break (Mironi Hall)		
11:00 -12:30	**Session 16.1: Alternative Fuels and Decarbonization (Electra)** *Chair: Antonios Trakakis*	**Session 16.2: Marine Engineering (Athina)** *Chair: Christos Papadopoulos*	**ISSW Session 6: Design and Operational Safety (Danai)** *Organisers: Jan Otto de Kat, Dimitris Konovessis, Marcos Míguez González*
11:00 -11:30	Life-cycle assessment and cost analysis of ammonia storage systems for shipboard fuel applications: The NH3Craft project (281) **Evanthia Kostidi, Dimitrios Lyridis, Alessandro Maccari, Haibin Wang, Xiaofei Cui, Nicholas Tsouvalis**	Thermo-environmental analysis of marine - type ORC-based exhaust gas waste heat recovery system using flame-retardant working fluid (175) **Mehmet Akman, Selma Ergin**	Estimation of the natural roll period of a large containership from ship motion observed during voyages **Yuhei Higo, Ryo Chikamori, Hirotada Hashimoto, Yusuke Yamamoto, Yoriyuki Masutani, Akihiko Matsuda**
11:30 -12:00	Thermo-economic assessment of a gas turbine combined system with alternative fuels for cruise vessel (279) **George Dimopoulos, Athanasios Vallis**	Effect of unaccounted hull deflections on shaft alignment: A case study (197) **Georgios Koutsoumpas, Orestis Vlachos, Chris Leontopoulos**	Application of a stability monitoring system to naval vessels **Lucía Santiago Caamaño, Ismael Díaz González, Marcos Míguez González**
12:00 -12:30	Formulating green shipping pathways for a clean energy transition in the Mediterranean: Framework and insights (315) **Manolis Annetis, Hristoforos Diamantis, Konstantina Bereta, Aurelio Lázaro Chueca, Fabio Alberto Gutiérrez Castro, Dimitrios Drivas, Nikolaos Ventikos**	Heating of heavy fuel oil in ship bunker tanks: Numerical modeling and simulation (209) **Koray Sahin**	Safe Return to Port 2010-2025 – the revolution in passenger ship design (presentation only) **Alessandro Maccari**
12:30 -13:00	**Closure of IMAM 2025 (Electra)** **Chair: Kostas Spyrou**		Naval architecture emergency response for UK naval ships – lessons learned **Morgan Griffiths, Olgun Hizir**
13:00 -14.30	Lunch (Main restaurant – 1st floor)		
14:30 -16:00	**ISSW Session 7: Application Experience with the Second Generation Intact Stability Criteria and Possible Regulatory Updates (Electra)** *Organisers: Naoya Umeda, William Peters*		
14:30 -15:00	Possible influence of the IACS Rec. 34 Rev. 2 on the Second Generation Intact Stability Criteria **Takako Kuroda, Masahiro Sakai**		
15:00 -15:30	Proposal of simplified operational guidance on parametric rolling and pure loss of stability and its validation using the full probabilistic operational guidance **Masahiro Sakai, Soichiro Okamoto, Mayu Takaya, Akihiro Oka, Naoya Umeda**		
15:30-16:00	Discussion to self-repeating effect in reconstruction of irregular waves for direct stability assessment **Naoya Umeda, Yuuki Maruyama, Vadim Belenky, Kenneth Weems**		
16:00 -16:30	Coffee break (Mironi Hall)		
16:30 -18:00	**ISSW Session 8: Emerging Technologies and Impact on Stability and Safety (Electra)** *Organisers: Frans van Walree, Nikos Themelis, Sam Edwards*		

16:30 -17:00	Development of an infinite element for deep-water waves for ultra-fast modeling of water wave problems **Justin Harler & Arthur Reed**
17:00 -17:30	Development of an onboard machine learning based early warning system for dynamic ship stability loss after damage **Bart Mak, Thomas Scholcz, Riaan van 't Veer**
17:30 -18:00	Uncertainty-aware decision support for real-time damage stability assessment in maritime emergencies **Panagiotis Louvros, Evangelos Stefanou, Nay Min Htein, Evangelos Boulougouris, Dracos Vassalos**
18:00-18:15	**Closure of ISSW 2025 (Electra)** *Chair: Kostas Spyrou*

KEYNOTE SPEECHES (Monday 29/9, 09:30 – 10:30)

The first keynote speech will be presented by Dr Arthur Reed, who is the U. S. Navy's Senior Scientist/ Technical Consultant for High-Speed Ship Hydrodynamics. He joined the David Taylor Model Basin (NSWCCD) in 1974 - 51 years ago - and received his Ph.D. in Naval Architecture and Marine Engineering from the University of Michigan in 1975.

Dr. Reed's lecture on "*Trends in Naval Hydrodynamics*" will focus on the challenges that ship designers face in the design of smaller naval vessels, which seem to be the wave of the future with the focus on unmanned systems. With Sea State 4 and above constituting more than 90 percent of the time in the North Pacific and not much less time in the North Atlantic, producing designs that have high levels of operability will be a challenge. Additionally, there is a lack of design history for smaller vessels for these environments making it a challenge to optimize the design in early-stage design - particularly from a structural loads perspective. Approaches to these issues will be addressed.

The second keynote speech will be presented by Dr.-Ing. Spyros A. Mavrakos, currently Prof. Emeritus of the National Technical University of Athens. He has been Professor of Floating Structures at the School of Naval Architecture and Marine Engineering of the NTUA (1984-2020) and Director of its Laboratory for Floating Structures and Mooring Systems (2005-2020). He served also as Director and President of the Hellenic Center for Marine Research (2105 – 2020). Prof. Mavrakos is a graduate of Naval Architecture and Marine Engineering of NTUA (1976) with Dr.-Ing Degree (1981) from the Ocean Engineering Division of RWTH-Aachen, Germany. His main research interests are the hydrodynamic analysis and design of floating structures, the analysis and design of mooring systems, the analysis and efficiency's evaluation of wave energy converters, as well as the coupled hydro – aero – elastic analysis of floating wind turbines.

Prof. Mavrakos' lecture on "*Developments in the FOWT supporting structures technologies*" will address the following topics: Overview of the globally installed Wind Energy Capacity and Perspectives. Existing FOWT installations. Overview of Floating Foundation Typologies and Mooring Systems options. Paradigms on existing FOWT installations in the Mediterranean and in the Atlantic. FOWT Cost Reduction Sources. Platform Design Innovations. Numerical modeling guidelines and standards for floating wind turbines. Advanced mooring and anchoring systems, status of failure modes, turbines' size for floating use. FOWT perspectives forecast.

PANEL DISCUSSION (Wednesday 1/10, 11:00 – 12:30)

The theme of the panel discussion is a new IACS wave scatter diagram (identified as IACS Rec. 34, Rev. 2) providing reference North Atlantic wave height and period statistics, replacing an earlier scatter diagram based on visual observations. The new dataset was intended to offer more representative information of North Atlantic seastates, since it is derived from AIS ship-track data, combined with hindcasting based on numerical wave models. These were applied for an expanded (to the south) Atlantic region. Furthermore, an updated spectrum (JONSWAP, $\gamma = 1.5$) and directional spreading (Cos³) were introduced. As regards strength, the extreme design wave loads were based on a 25-year return period; while for fatigue, design

wave loads were selected at 10^{-2} probability level. However, application of the new scatter diagram seems to result in lower extreme wave and fatigue loads, with reductions greatest on shorter vessels and certain hull responses. Some parties have voiced concerns at IMO MSC meetings, urging that Rev. 2 not to be used for ship design or class rule development until further validated, citing issues in geographic scope, climate change omission, and methodological limitations. This very important, for ship design, matter will be debated in a specially assembled panel comprised of top experts on this topic. The invited panelists are:

Håvard Austefjord, Project Manager of Development of Rec.34 rev 2, Det Norske Veritas
Quentin Durbanne, Scientific Director, Bureau Veritas
Dimitrios Monioudis, Chairman of Technical Committee, INTERCARGO
Chris Waddington, Technical Director, international Chamber of Shipping

The panel will be chaired by Dr. Jan O. deKat, Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping

USEFUL INFORMATION

The Conference Secretariat (with its Registration and Help Desk) will be located at Mironi Hall, from the afternoon of Sunday 28/9 and for all the days of the Conference. Coffee breaks will take place in the same room. Enquiries, special dietary requirements etc. from participants are welcome. Internet *wi - fi* will be available, please ask at the Registration Desk for the access code.

The IMAM Congress will run in three parallel sessions. The first stream will be in *Room Electra*. The second stream will be in *Room Athina* and the third stream in *Room Danae*. The Rooms are located next to each other at level -1. First day's sessions of the ISSW (Thursday 2/10) will take place in *Room Iris* located at level 0. The morning sessions of the second day of ISSW (3/10) will be in *Room Danae* and the afternoon sessions, until Workshop's closure, in *Room Electra*.

IMAM and ISSW Committee meetings will take place in *Room Arion* located next to the *Iris*. The IMAM Executive Committee meeting will be held on Tuesday 30/9 between 18:15 and 19:15. It will be followed by the IMAM General Assembly from 19:15 until 20:00. The ISSW Standing Committee meeting will take place on Friday 3/9, between 18:15 and 20:00.

Each IMAM presentation will last for 20 minutes, followed by 10 minutes of Q&A and discussion. ISSW sessions format is specified by the session organizers (see program). Each presenter should deliver the presentation material to the volunteer assigned to the room of the session well in advance of the scheduled time of the talk. The volunteer will upload the presentation to the computer and, together with the presenter, will check that it opens and runs properly. Standard .pptx presentations are supported. If videos are included, it should be ensured that they play at the computer of the session. Special software requests may be possible to be accommodated if notified at the time of registration at latest. The chairperson should ensure that the session stays within the allocated time and that questions remain brief and focused, allowing as many attendees as possible to contribute.

Delegates who are interested in the recommended (optional) tours described in the social program section of this booklet are welcome to ask for advice or assistance at the Registration Desk.

Buses will depart for the Conference's cultural tour from venue hotel's main entrance on Wednesday 1/10, at 13:00. Lunch boxes will be distributed before departure. Delegates and accompanying persons will be divided into two groups. Group 1 will begin with a visit to the Agia Triada Monastery, followed by a tour of the archaeological site of Aptera. Group 2 will follow the reverse itinerary, visiting Aptera first and then the monastery. Return to the hotel will be at about 19:00.

Conference dinner - Thursday 2nd of October: Buses will depart from the main entrance of the hotel venue at 18:45, with an expected arrival to Chania's Old Harbor around 19:10. Delegates will have free time to stroll around the picturesque harbor or visit the permanent exhibition of the Nautical Museum of Crete, which will remain open especially for our group during this time. Dinner will be served from 20:15 at the Yacht Club, located in the historic Moro Arsenali. Return buses will depart from the Old Harbor at approximately 22:30.

IMAM 2025 and ISSW 2025 photo shoots will take place. Time and location will be announced. Please make sure that you are in the picture!

SOCIAL PROGRAM

The social program is designed to give delegates and their accompanying persons the opportunity to experience the rich cultural heritage of western Crete. In addition to the official activities, we have prepared several tour recommendations that participants may explore according to their individual schedules. For any assistance, please feel free to contact the Conference Help Desk.

A. SOCIAL EVENTS INCLUDED IN THE PROGRAM

Sunday September 28th, 19.30 - 21.30

COCKTAIL RECEPTION AT THE ROOF GARDEN OF PORTO PLATANIAS BEACH RESORT & SPA

The Welcome Reception will take place at the venue Hotel's Roof Garden overlooking the beautiful Platanias sandy beach. (*Free for all registered participants*)

Tuesday September 30th, 10.00 - 13:30

CHANIA OLD TOWN WALKING TOUR

This guided tour includes visits to archaeological Minoan sites, Othoman minarets and mosques, Muslim neighborhoods, Venetian fortresses and dockyards, fountains and squares, arches and mansions, the famous Loggia and the landmark of the city, the renowned Lighthouse. The market area hosts a variety of traditional little shops & cafes, the local tavernas and small art workshops. The tour ends at Kafeneion Fix, with a tasting that includes a few local delicacies. (*Free for registered accompanying persons*)

Wednesday October 1st, 13:00 – 19:00

CULTURAL TOUR

The Cultural Tour includes a guided visit to the Agia Triada Tzagarolon Monastery, where delegates will enjoy also wine tasting in the Monastery's cellar, followed by a walk through the ancient ruins of Aptera, one of western Crete's significant archaeological sites.

Agia Triada Monastery, located on the Akrotiri Peninsula near Chania, was founded in the early 17th century by the Venetocretan Tzagarolos family. The monastery is a harmonious blend of Orthodox tradition and Venetian Renaissance style. The tranquil courtyard, surrounded by monks' cells and gardens, offers a peaceful atmosphere ideal for reflection. The estate produces good quality wine, olive oil, and honey, continuing centuries-old monastic traditions. Visitors can explore a small museum with religious artifacts, manuscripts, and icons. Delegates will enjoy a guided wine tasting featuring organic wines produced by the monks from local grape varieties.

Aptera is an ancient city-state located on a hill above Souda Bay, just east of Chania. It flourished from Minoan to Roman times, serving as a key commercial and military center. Highlights include a small theatre, Roman cisterns, city walls, and panoramic views. The site also features Byzantine chapels and traces of Venetian fortifications. Aptera offers a quiet, historically rich visit in a stunning natural setting.

Busses will depart at 13:00 from the entrance of the hotel venue. (*Free for all registered participants*)

Thursday October 2nd, 18:45 – 23:00

CONFERENCE DINNER

Departure at 18:45, to visit the Old Harbor of Chania, and particularly the remaining buildings of the Moro Shipyard, a historic and cultural landmark located on the eastern edge of the Harbor. Dinner will be served from 20:30 at one of these buildings hosting today the Chania Yacht Club. The delegates can stroll around the harbor until the time of the dinner and/or visit the permanent Exhibition of the Maritime Museum of Crete.

The Moro shipyard was built between 1599 and 1607 designed under the supervision of General Benedetto Moro. Out of the five original buildings, two were completed in full, still standing today. They are large stone structures with arched façades, originally open to the sea to allow ships to enter for repairs. Since 2010, one of the two buildings houses the Chania Sailing Club, which has renovated the space and transformed it into a vibrant cultural venue. The second building is used as an annex of the Maritime Museum of Crete, hosting the Permanent Exhibition of Ancient and Traditional Shipbuilding. Its main highlight is a full-scale replica of a 17 meters long Minoan ship, built using authentic ancient techniques and materials. The ship sailed from Chania to Athens in 2004 as part of the Olympic Games celebrations.

The exhibition also includes ancient shipbuilding tools, models of traditional vessels, and rich information about Crete's long-standing maritime heritage.

(*Free for full registration participants and for registered accompanying persons*)

B. OPTIONAL (RECOMMENDED) TOURS

The tours presented below may be planned by the delegates according to their own availability of time (pre-conference or post-conference). Please contact the registration desk if help is needed.

(*The 27th of September is World Tourism Day and access to museums and archaeological sites is free*).

ARCHAEOLOGICAL MUSEUM OF CHANIA

In the museum are exhibited artifacts from western Crete, spanning from the Neolithic to Roman period. Its collections include Minoan pottery, jewelry, statues, and inscriptions, offering insight into the region's ancient civilizations. The museum is housed in a modern building in the beautiful Halepa suburb, designed to enhance the visitor experience. Highlights include rare finds from ancient Kydonia and Aptera, as well as a unique Roman floor mosaic.

HISTORICAL BULDINGS IN THE OLD CHANIA HARBOR

Take the bus from Platanias to Chania's Central Bus Station, then walk for 5 - 7 minutes to reach the old harbor. Walking around Chania's old harbor is a great way to explore the city's history and charm. Stroll along the waterfront with its mix of Venetian, Ottoman, and Greek architecture. See highlights like the old lighthouse, the Mosque of the Janissaries and the Firka Fortress ("Revellino del Porto" of Venetian time) which houses also the main exhibitions of the Maritime Museum of Crete. The harbor is full of life, with cafés and shops.

SAMARIA GORGE

The Samaria Gorge is one of Europe's longest and most impressive gorges, located in southwest Crete. The gorge has two natural entrances. The northern Samaria Gorge entrance is at an altitude of 1,227 meters at the Omalos Plateau (the distance from Chania to Samaria Gorge is 40 km). The southern Samaria Gorge entrance is at sea level, in a dry valley before the village of Agia Roumeli. The gorge stretches 16 km through the White Mountains and hikers can enjoy stunning views of quite unique landscapes. The gorge is home to rare flora and fauna, including the endangered Cretan wild goat, the kri-kri. Hiking through it is a popular activity, typically taking 5–7 hours from the Omalos Plateau to Agia Roumeli. Samaria is a protected national park and UNESCO Biosphere Reserve, drawing nature lovers from around the world.

ARCHEOLOGICAL SITE OF ELEFTHERNA

Located on the northern slopes of Mount Ida in Rethymno, at a distance about 80 km from Chania (to the east), the ancient city of Eleutherna spans from the 4th millennium BC to the Byzantine era and includes major settlements. Excavations since the mid-1980s have revealed Hellenistic fortifications, Roman baths, a basilica, and the renowned Orthi Petra necropolis, with Iron Age tombs illustrative of Homeric burial rites. The Museum of Ancient Eleutherna, inaugurated in June 2016, is Crete's first museum built within its archaeological site, designed to house finds directly from the area. Three exhibition halls present daily life artifacts (Hall A), religious and sculptural offerings including the "Lady of Eleutherna" (Hall B), and funerary treasures from Orthi Petra (Hall C), including a bronze shield linked to Homeric warrior myths.

THE EXOTIC BEACHES (WEST of CHANIA)

Falasarna with its famous crystal-clear turquoise waters and fine golden sands, is ideal for a post-conference day (or half-day) excursion and a relaxing swim. It is 59 km from Chania (about 75 minutes by car). Bus service also operates in tourist season.

The *Balos Lagoon*, with its shallow waters and stunning shades of blue and green, is reached by boat from Kissamos (25 minutes from Platanias) or by driving to a nearby parking area followed by a short hike with panoramic views. It offers a breathtaking natural setting perfect for photography.

Elafonisi, with its lagoon-like shallow waters, enchants visitors with its pink-hued sand a result of crushed minute shell fragments (foraminifera) blending with white sand. It is around 90 minutes' drive (southwest).

ORGANIZING INSTITUTIONS

The National Technical University of Athens (NTUA) is Greece's oldest and most prestigious academic institution in the field of technology. Founded in 1837 as the Royal School of Arts, it has grown into a leading academic place comprising nine Schools, supported by approximately 500 faculty members and serving over 10,000 undergraduate and 1,500 postgraduate students. NTUA's historic campus is in central Athens, while its modern campus is in the Athenian suburb of Zographos, offering modern facilities and research infrastructure. **The School of Naval Architecture and Marine Engineering** is among the largest of its kind in Europe and globally. With a faculty of around 25 academics, it spans a broad range of expertise and maintains a strong international profile through cutting-edge research.

The Hellenic Institute of Marine Technology (HIMT) is the Greek professional society dedicated to the advancement of marine/maritime technology. Established in 1972, HIMT serves as a platform for dialogue among professionals, engineers, academics, and policymakers, promoting technological innovation and excellence within Greece's maritime sector. HIMT organizes conferences, seminars, and technical events to enhance knowledge exchange and professional development. Since 2007, it has been organizing the Annual Meeting of Marine Technology, a key event in Greece's maritime calendar that bridges and brings together the academic and industrial sectors. HIMT has organized 3 previous IMAM Congresses, in 1984, 1990 and 2002 (the last jointly with NTUA).

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