2025 PRADS

16TH TRIENNIAL

THE 16TH INTERNATIONAL SYMPOSIUM ON PRACTICAL DESIGN OF SHIPS AND OTHER FLOATING STRUCTURES

PROGRAM OVERVIEW

OCTOBER 19-23, 2025

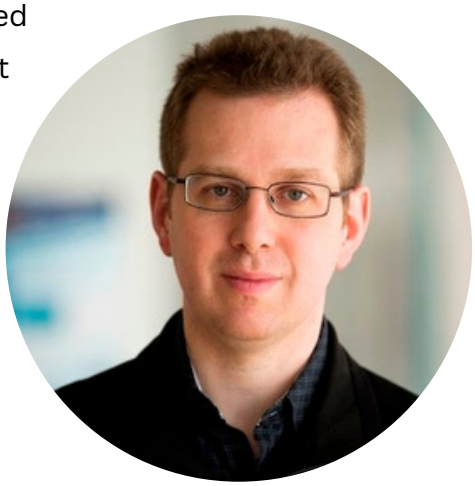
ANN ARBOR, MICHIGAN

WELCOME FROM THE STANDING COMMITTEE CHAIR

On behalf of the International Standing Committee and the Local Organizing Committee, welcome to the 16th International Symposium on Practical Design of Ships and Other Floating Structures. This event marks 48 years since the first PRADS was held in Tokyo. Since that initial meeting, this conference has grown to be the premier gathering of those interested in the design and production of ships and floating structures.

Your presence here is a testament to the enduring power of collaboration. Our global ocean connects us all, transcending boundaries and reminding us of both the responsibility and the opportunity we share. I appreciate the effort each of you made in traveling here to Michigan, and I look forward to your presentations, questions, and time spent renewing acquaintances from around the globe.

It is a pleasure to host PRADS at the University of Michigan, which is one of the oldest Naval Architecture and Marine Engineering programs in the United States, and today the only program at an R1-rated university spanning Bachelor's degrees through Ph.D. Founded in 1881 when the United States had fallen far behind the world in iron shipbuilding and steam propulsion, the department has long been a beacon for advancement in marine technology. The department has long been globally connected, from the early growth of the department when we recruited faculty from Europe to the present day when we collaborate daily with colleagues across the globe. We are proud to blend our long history with cutting-edge education and research. As we look to the future, we are excited about the opportunities in the marine domain and glad to host the 16th edition of PRADS.



Matthew Collette
International Standing Committee Chair
Professor of Naval Architecture and Marine Engineering

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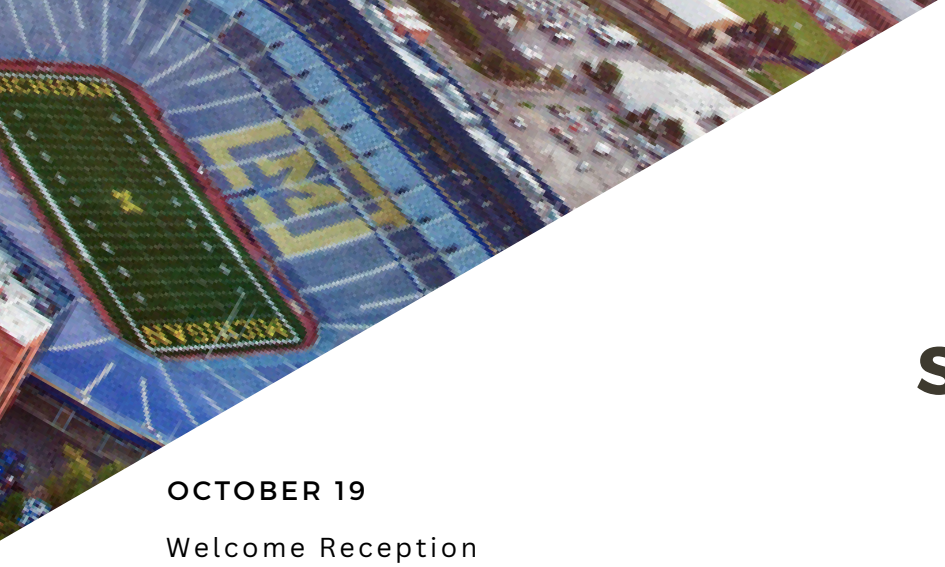


SCHEDULE

OCTOBER 19

Welcome Reception
Jack Roth Stadium Club at Michigan Stadium 1800-2000

OCTOBER 20

Registration- Michigan League 0800-0900

Plenary Lectures- Michigan League 0900-1000

Morning Sessions- Michigan League 1030-1210

Lunch- Michigan League 1210-1300

Afternoon Sessions- Michigan League 1300-1440, 1510-1650

OCTOBER 21

Plenary Lectures- Michigan League 0900-1000

Morning Sessions- Michigan League 1030-1210

Lunch- Michigan League 1210-1300

Afternoon Sessions- Michigan League 1300-1440, 1510-1650

OCTOBER 22

Morning Sessions- Michigan League 0900-1040, 1110-1250

Lunch- Michigan League 1250-1340

Tour of National Museum of the Great Lakes (Including the 190m ship *Col James M. Schoonmaker*)- Toledo, OH 1500-1700

Conference Dinner- Detroit Institute of Arts 1800-2100

OCTOBER 23

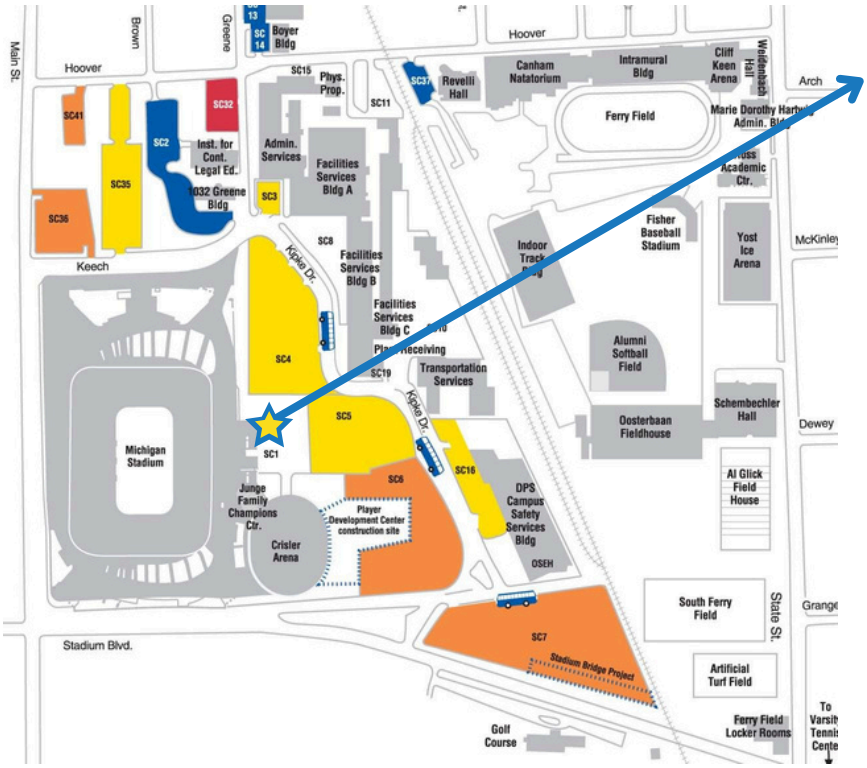
Morning Sessions- Michigan League 0900-1040, 1110-1250

Lunch- Michigan League 1250-1400

SUNDAY RECEPTION 1800-2000

We will start PRADS with an evening reception in the Jack Roth Club at Michigan Stadium. American football has long been a strong component of the Michigan experience. The University's team, the Wolverines, have the most wins in college football history, and have been national champions 12 times. Michigan Stadium is the largest stadium in the Western Hemisphere, with an officially listed capacity of 107,601 people, though crowds up to 115,000 are common. Originally built in 1927, the stadium has a streak of over 300 American Football games with attendance of over 100,000 at each game, it has also played host to numerous other events, including the North American record attendance for an Association Football game of 109,318 when Manchester United defeated Real Madrid in 2014.

The reception will feature appetizers and drinks. Please stop by for as much or as little as you can. Unfortunately, as PRADS is not an athletic competition, we will not be allowed to serve alcohol on Sunday night.



The Jack Roth Stadium Club entrance is HERE.

Guests may park in any available spaces in nearby lots such as SC1, SC4, SC5, or SC6.

If using a rideshare service, please request drop-off at 1201 S. Main Street, near the Jack Roth Stadium Club entrance.

The stadium is accessible via the University of Michigan Blue Bus and TheRide, both of which stop near Stadium Blvd and Main Street.

On Wednesday afternoon, we will have the chance to get to know the Great Lakes a bit better with a conference tour visiting a historic lake freighter, a museum about the Great Lakes, and then an evening reception at the Detroit Institute of Arts. The Great Lakes maritime trade is a fascinating part of our industry. The Lakes are connected to the ocean by the Saint Lawrence Seaway, allowing smaller vessels the ability to trade directly between Lake ports and the rest of the world. Within the Lakes, much larger vessels carry bulk cargoes, primarily iron ore, stone, and coal, between ports. Safely ensconced in the fresh water of the Lakes, it is not uncommon for these vessels to last 50 to 80 years. With a surface area roughly half that of the North Sea, the Lakes can also be a violent body of water, with the much-feared gales of November creating 8m-10m short, steep seas.

Note - the tour includes time on historic vessels. Closed-toe shoes with good traction and appropriate outerwear for the day's weather are highly recommended. It will take about 1 hour to reach the first stop after leaving the conference venue, another hour to dinner, and then about 45 minutes to return to Ann Arbor.

National Museum of the Great Lakes

Established by the non-profit Great Lakes Historical Society, the National Museum of the Great Lakes chronicles the natural and human history of these unique bodies of fresh water. The museum has over 300 artifacts, including the pilothouse from the St. Marys Challenger, a Lake Freighter whose career ended in 2014 after 108 years of service (well, partially - the cargo section of the hull was remade into a barge that is still going strong today!)

SS Col. James M. Schoonmaker and Tug Ohio

These two museum ships capture much of the Great Lakes industries. The Schoonmaker was one of the first 600-foot long ore-carrying lakers built, and was the largest ship on the Lakes at the time she entered into service in 1911 with a capacity of 15,000 tons of cargo. After sailing for 69 years, the ship was converted into a museum ship. The tug Ohio started life as a firefighting tug in 1903, and was later converted into a towage vessel. After 112 years of service, the vessel was laid up in 2015, and then donated to the National Museum of the Great Lakes.

Detroit Institute of Arts

Considered one of America’s preeminent art museums, the Detroit Institute of Arts has been a centerpiece of Detroit’s cultural life since its founding. While it has a large and varied collection, we will visit after hours for dinner in its Great Hall. Next to the Great Hall, we will also see the Rivera Court, where Mexican artist Diego Rivera painted 27 frescos exploring the relationship between humans, machines, and science in and around Detroit. Famous for its depiction of work in the Ford assembly lines, the works were highly controversial when first unveiled for their Marxist leanings and seen as blasphemous.

Getting Around

- Walking: Downtown Ann Arbor and Central Campus are compact and walkable (10–15 minutes across).
- Buses:
  - TheRide (AAATA): Covers Ann Arbor and Ypsilanti. $1.50 fare, free for UM students with MCard.
  - UM Campus Buses: Free shuttle service across Central, North, Medical, and Athletic campuses.
- Parking: Closest downtown/campus options include Maynard, Liberty Square, and Ann Ashley structures. Downtown structures are $1.65/hr; on-street meters are $2.50/hr.

More Info: a2dda.org/getting-around

Food & Coffee (Walkable from Campus)

- Coffee/Bakeries: Sweetwaters Coffee & Tea, Comet Coffee, RoosRoast, Starbucks
- Lunch/Dinner: Sava's (American), Frita Batidos (Cuban street food), Jolly Pumpkin (brewpub), Tomukun Noodle Bar
- Quick Bites: Amer's Deli, NYPD Pizza, Panera (North University)

More dining options: annarbor.org

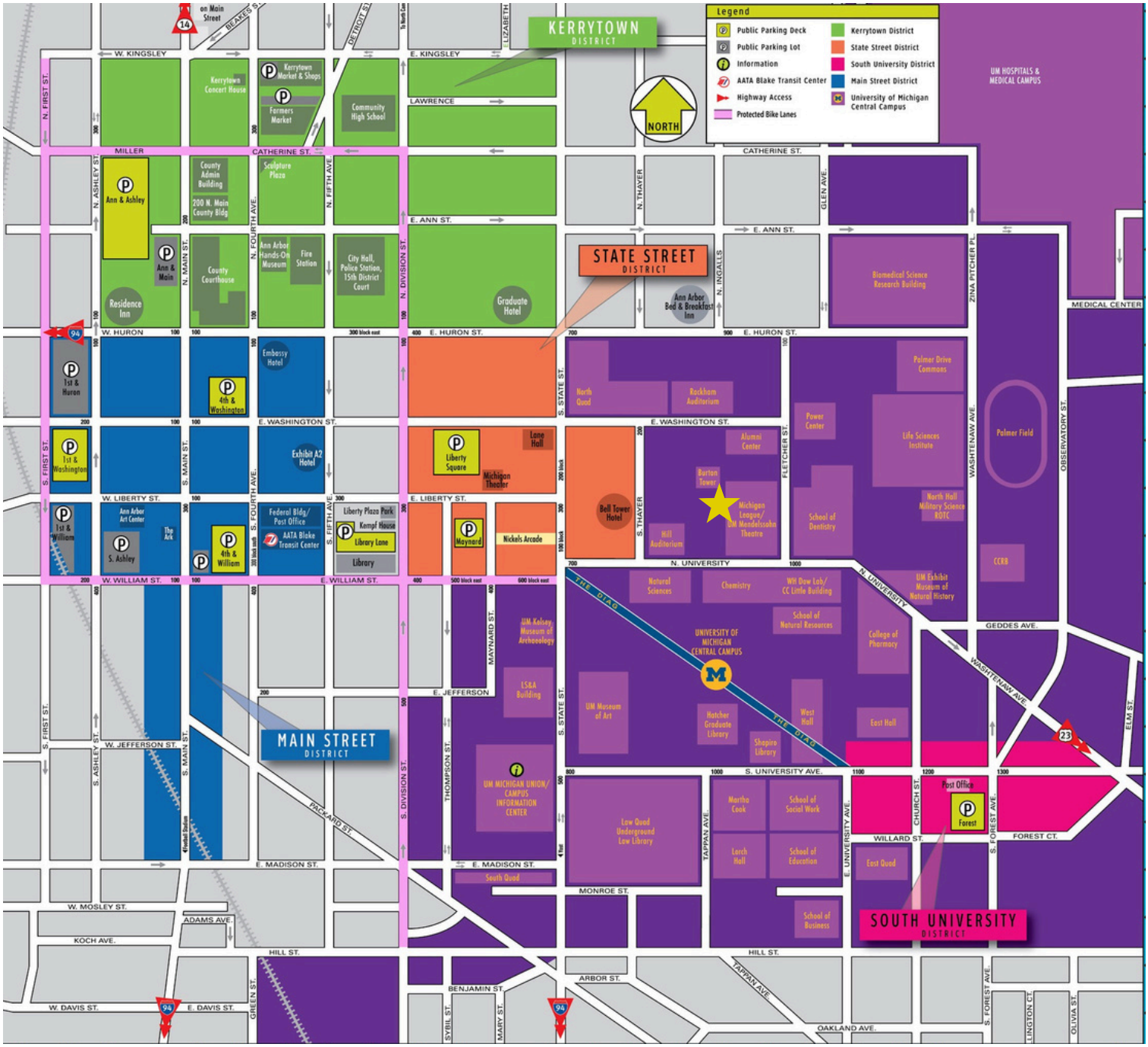
Emergency & Essentials

- Hospital / ER: Michigan Medicine – 1500 E. Medical Center Dr.
- Urgent Care / Student Health: University Health Service (207 Fletcher St., weekdays)
- Pharmacies: CVS (209 S. State St.), Walgreens (Catherine & Glen)
- Campus Info: Michigan Union, 530 S. State St.

Tips

- WiFi: Visitors can connect to "MGuest" WiFi on campus.
- Transit App: The M-Bus app provides local bus routes and real-time arrivals. The official Michigan App also includes bus information and other campus resources.

DOWNTOWN WALKING MAP



a2dda.org

MICHIGAN LEAGUE FLOOR PLAN

Michigan League

911 N University Ave, Ann Arbor, MI 48109

CONFERENCE & EVENT SERVICES

Michigan League

Conference events in the Michigan League will be held on the 2nd floor: Vandenberg Room, Hussey Room, Michigan Room, Kalamazoo Room, and Ballroom.

Preliminary Schedule

Note: All paper and keynote rooms are on the 2nd floor of the Michigan League

Sunday 19 October 2025 – Michigan Stadium, 1201 S Main St, Ann Arbor, MI 48109				
1800-2030	Welcome Reception, Jack Roth Stadium Club at Michigan Stadium 1201 S Main St, Ann Arbor, MI 48109			
Monday 20 October 2025 – Michigan League, 911 N. University Ave, Ann Arbor, MI 48109				
0800-1700	Registration Desk -2nd Floor			
0900-1000	***Opening Ceremony and Opening Keynote, Michigan League Ballroom:*** 0900-0920: Prof. Arthur Lupia, Vice President for Research and Innovation, University of Michigan, Opening Remarks 0920-1000: Mr. Hong Ryeul Ryu, Chief Technology Officer at HD Hyundai Heavy Industries (HD HHI), Opening Keynote: "***Eco-friendly/New technology trends and Next Generation Digital platform for design and production consistency***"			
1000-1030	**Coffee Break, Michigan League Concourse, 2nd Floor**			
1030-1210	**Design Processes** ***Vandenberg Room***	**Decarbonization** ***Hussey Room***	**Seakeeping + AI / ML** ***Michigan Room***	**Structures** ***Kalamazoo Room***
1030-1055	Semantically-driven Interpretation of Stakeholder Requirements and Quantification of Impact to Layout Design, ***Apostolos Souflis-Rigas***	Study on Improving the Durability of Fuel Cell Components Exposed to Salt in Marine Environments, ***Chi-Yeong Ahn***	Route Evaluation on Seakeeping Risks using Predictions by Artificial Intelligence, ***Christopher Krause***	Steel Coil Loads acting on Inner Hull in Heel Condition, ***Kei Sugimoto***
1055-1120	Enhancing Creativity in Super Yacht Design Through Modular Principles: A Visualization Approach, ***Jaap Marcus***	Reduction of Fossil Fuel Consumption in Ship Power Generation Through Waste Heat Recovery Systems, ***Seung-Taek Lim***	Prediction of Wave-Induced Responses Using Machine Learning and Full-Scale Measurements, ***George Jagite***	
1120-1145	Design of Ships for Extreme Non-Linear Responses, ***Sanne van Essen***	An Overview of Energy Saving Devices through Model Test Database, ***Joon-Hyoung Lee***	Predicting Ship Resistance and Wave Profiles Using Machine Learning Models with Hull Geometry, ***Kyung-Kyu Yang***	Assessment of Critical Conditions for Corrosion Fatigue Crack Initiation Life of Stainless Steel, ***Won Beom Kim***

Preliminary Schedule

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1145-1210	Toward a hybrid-based geometric registration technique for efficient detection of design modifications in ship CAD models, ***Jong-Ho Nam***	Fuel-Saving Potential of Different Bulk Carriers using Air Lubrication System, ***Shibo Zhao***	Seakeeping Calculation Workflow for Hull Form Optimisation, ***Ruddy Kurnia***	Update of the Rule Load Formulations in the IACS Common Structural Rules, ***Quentin Derbanne***
1210-1310	**Lunch, Michigan League Ballroom**			
1310-1450	**Design Processes** ***Vandenberg Room***	**Alternative Fuel** ***Hussey Room***	**Propeller Design** ***Michigan Room***	**Hull & Propeller Optimization** ***Kalamazoo Room***
1310-1335	Intelligent Optimisation for Enhanced Ship Design, ***James Williams***	Evaluating Fuel Efficiency Through Real-World Tested Route Optimization Cases, ***Seyong Jeong***	A Study on CFD Analysis of Composite Propellers Using a Prescribed Deformation Technique, ***Ju-Han Lee***	Energy-Efficient Hull-Propeller-Engine Matching Optimization via Cooperative Multi-agent Reinforcement Learning, ***Lecheng Li***
1335-1400	Method for Design and Operation Recommendations of Cruise Ships – Application to Comparison of Four Cruise Ship Classes, ***Sabina Akter***	Assessing the Feasibility of Methanol as an Alternative Fuel: Techno-Economic and Environmental Analysis of Methanol-Diesel Dual-Fuel Engines in Maritime Applications, ***Seyedvahid Vakili***	The Influence of Propeller Skew on Cavitation Noise: A Numerical Study, ***Leonie Föhring***	The Benefits of Combined Hull Form and Propeller Optimisation, ***Joy Klinkenberg***
1400-1425	MBSE in Ship Design: A Critical Systematic Review – The Case for Systems Element Analysis Methodology, ***Zacharias Oikonomou***	Safety Paradox in Ammonia-Fueled Vessels: CFD Study on Ventilation Effectiveness and Its Environmental Consequences, ***Hyunpyo Kim***	A Study on Maneuverability of a Ship Equipped with the CFRP Propeller by Means of Simulation Model Including Engine Dynamics, ***Yasushi Kitagawa***	On Hull-Propeller-Rudder Interaction and Propeller Design for a Ship with Wind-Assisted Propulsion, ***Bente Schalk-Meijerink***
1425-1450		Methanol Pool Evaporation in Confined Spaces, ***Farah Bziker***	Investigation of Tandem Propellers with Varying Design Configurations, ***Kiran George Varghese***	Experimental Study on the Propulsive Characteristics of Ship in Regular Head Wave, ***Myoung-Soo Kim***
1450-1520	**Coffee Break, Michigan League Concourse, 2nd Floor**			
1520-1700	**Offshore** ***Vandenberg Room***	**Shipbuilding** ***Hussey Room***	**Design and Operational Standards** ***Michigan Room***	**Hull & Propeller Optimization** ***Kalamazoo Room***

Preliminary Schedule

Note: All paper and keynote rooms are on the 2nd floor of the Michigan League

1520-1545	Knowledge-Based Engineering (KBE) Automatic Layout Generation Framework for Modular Offshore Wind Service Vessels, ***I-ting Kao***	A Generative AI-based Q&A System for Design Regulations, ***In-Su Han***	ISO15016:2025 Improved Standard for Speed/Power Trials: Creating a level playing field for EEDI, Newbuilding Contracts and EEXI, ***Henk Van den Boom***	Towards Climate Resilient Inland Waterway Vessel Design: Concept of Distributed Thrust for Shallow Water Conditions, ***Richmond Anku***
1545-1610	Research on Intelligent Optimization of Floating Platform Parameters Based on Few-Shot Data, ***Yichen Jiang***	Simulating and Visualizing Persons Movement in Deck Arrangements: an Web-Based Approach, ***Tomasz Hinz***	Development of strength analysis for hull and supports under docking conditions, ***Ju-Sung Kim***	Preliminary Optimization Method of Ship Hull Form Design Based on Convolutional Neural Network-based Surrogate Model Using Additional Surface Curvature Feature, ***Xin Li***
1610-1635	Design Selection and Experimental Validation of a TLP Floating Wind Turbine Considering Sum-Frequency Effects, ***George Wang***	Machine Learning–Metaheuristic Based Optimization of Midship Plate Scantling for Very Large Crude Oil Carrier, ***Choong-ki Kim***	SA-MOAF Enhanced NSGA-II for Vessel Scheduling in Compound Channel Systems, ***Yujia Xiao***	Next-Generation Wind-farm Support Vessels: Evaluating the Impact of a Novel Hull and Thruster Layout, ***Karthik Sankaramoorthy***
1635-1700	Comparative Study of Dynamic Cable Configurations for Twin Floating Offshore Wind Turbines, ***Daseul Jeong***	All Hands on Tech: Developing an AI Naval Architect, ***Timothy Mcintyre***	Low Speed Course-Keeping and Zigzag Manoeuvres of a KSUPRAMAX Bulk Carrier in Waves, ***Dong-Jin Kim***	A Study on the Scaling Methods for the Wake Fraction of Ships with a Pre-Swirl Device, ***Nakyong Choi***
Tuesday 21 October 2025 – Michigan League, 911 N. University Ave, Ann Arbor, MI 48109				
0900-1000	***Keynote, Michigan League Ballroom*** Recent advances in mesh-insensitive method for fatigue evaluation of ship and floating structures ***Prof. Pingsha Dong, Department of Naval Architecture and Marine Engineering, University of Michigan***			
1000-1030	**Coffee Break, Michigan League Concourse, 2nd Floor**			
1030-1210	**Decarbonization** ***Vandenberg Room***	**MASS** ***Hussey Room***	**Shipbuilding** ***Michigan Room***	**Seakeeping** ***Kalamazoo Room***

Preliminary Schedule

Note: All paper and keynote rooms are on the 2nd floor of the Michigan League

1030-1055	A Bi-objective Markov Decision Process Approach to Explore Retrofit Design Pathways for Maritime Decarbonization, ***Apostolos Souflis-Rigas***	Mission-Oriented Design Evaluation of Autonomous Surface Vehicles to Connect Early-Stage Design Decisions to Operational Requirements, ***Hao Yuan***	Optimal Shipbuilding Production Planning through Modeling and Simulation of Complex Rules and Space Constraints, ***Yui Okubo***	The effect of serial correlation on sailing ship extreme responses, ***Guillaume de Hauteclocque***
1055-1120	Advancing Forward-Accommodation Designs for Decarbonization in Maritime Vessels, ***Byeonghyeon Min***	A Simulation-Based Backup Monitoring System for Remote Operation Centers Under Degraded Communication Conditions, ***Hyun-jae Jo***	Toward Process Improvement in Hull Construction: A Combined Work Monitoring & Simulation Framework for Schedule Deviation Analysis, ***Chenwei Gui***	Investigation on Variability of Whipping in Irregular Wave Conditions for a Large Container Ship, ***Katsutoshi Takeda***
1120-1145	Leveraging advanced marine design and decision-making methods to address the maritime decarbonization challenge, ***Joseph Burgoyne***	Mission Planning and Weather Sensing for Autonomous Surface Vehicles, ***Rachel Mecca***	Managing Design Changes in Shipbuilding: Proposing a Real-Time Simulation Dashboard, ***Jisang Ha***	Numerical Investigations of Non-Linear Responses of a Vertical Membrane in Waves, ***Maël Moreau***
1145-1210	Holistic Design Optimisation Applied to a Wind Propelled Cruise Vessel, ***Joost Schot***	Fully Autonomous Surface Ships (MASS): Challenges, Opportunities, and the Path Toward Sustainable and Secure Operations, ***Seyedvahid Vakili***	Wet Vibration Analysis and Uncertainty Quantification of Ship Plates, ***Zhigang Wei***	Numerical simulation of ship-ice interaction in brash ice channel using CFD-DEM, ***Shayan Rabizade***
1210-1310	**Lunch, Michigan League Ballroom**			
1310-1450	**KU-Leadership – Special Session 1** ***Vandenberg Room***	**Seakeeping** ***Hussey Room***	**Design** ***Michigan Room***	**Propulsion Test Sites** ***Kalamazoo Room***
1310-1335	Applying Deep Reinforcement Learning for Complex Scheduling Problems in Shipbuilding: Insights and Challenges, ***Jong-Hun Woo***	Concurrent Estimation of Ship Transfer Functions and Incoming Waves by Using Response Measurements, ***Tomoki Takami***	Automated Pipe Routing Generation for Ship Engine Room Design: Reducing Design Effort and Improving Efficiency, ***Mi-Jin Kim***	Current Development Status and Future Plans for the Prototype of Magnetic Bearing-Based Rotor Sail Technology by KRISO, ***Kwangseok Lee***

Preliminary Schedule

Note: All paper and keynote rooms are on the 2nd floor of the Michigan League

1335-1400	Enhancing probabilistic damage stability assessments in ships: automating damage combinations for complex bulkhead shapes, ***Jong-Ho Nam***	A Broad CFD-Based Study of the Non-Linear Effects on Wave-Induced Bending Moments and Shear Forces on Monohull Ships, ***Tormod Landet***	From Components to Clusters: Strategies for Smarter Placement of Onboard Energy Systems, ***Evelien Scheffers***	Recent Developments of a land-based demonstration system for 1MW class electrified ship propulsion in KRISO, ***Yun-Ho Kim***
1400-1425	Axiomatic Design Application to the Development of a Submersible Test Platform with Conflicting Functional Requirements, ***Hyun Chung***	Research of running performance of a new generation of river-sea passenger vessel, ***Alexander Egorov***	Measurement of ship motion and hull girder deformation of an icebreaker by using real-time kinematic global navigation satellite system, ***Kohei Mikami***	Engine Room of the Future – Lessons Learned in the Development of MARIN's Zero Emission Laboratory, ***Menno Merts***
1425-1450	Bayesian Approach for Sensor Fault Detection in the Conversion Model of a Digital Twin for Ocean Mobility Systems, ***Seung Woo Song***	Evaluation of Mock Quay Wall Dimensions for Tank Tests Based on Numerical Analysis of Wall Effects, ***Masatoshi Hirota***	Voltage Drop Calculations on Shipboard Power Systems, ***Norbert Doerry***	Study of SPB® LNG Fuel Tank, ***Kozo Tsuchida***
1450-1520	**Coffee Break, Michigan League Concourse, 2nd Floor**			
1520-1700	**KU-Leadership – Special Session 2** ***Vandenberg Room***	**Hull and Propeller Optimization** ***Hussey Room***	**Offshore** ***Michigan Room***	**MASS Operations** ***Kalamazoo Room***
1520-1545	Ontological Commitment and Causality in the Use of Design Tools, ***Connor Arrigan***	Quantitative Assessment of Marine Fouling on Propeller Surfaces Using 3D point cloud analysis, ***Tae-Jun Youn***	Advances in Hybrid Structural Health Monitoring for Ships and Offshore Structures, ***George Jagite***	Design of Safety Management System for MASS Sea trial based on Formal Safety Assessment Risk Analysis, ***Kwanwook Chun***
1545-1610	Neo-Panamax Decarbonization via Microreactor Propulsion Conversion, ***Richard Kang***	Rapid Cavity Volume Calculation of Marine Propeller Using Lift Equivalent Method, ***Takashi Kanemaru***	An efficient numerical Model for Evaluation of the Whipping Influence on Fatigue Life of Structural Details of Floating Structures, ***Nikola Vladimir***	Detecting Nonlinearities in System Motion Predictions for Autonomous Marine Vessels, ***Brendan Sulkowski***

2025 PRADS 16TH TRIENNIAL

Preliminary Schedule

Note: All paper and keynote rooms are on the 2nd floor of the Michigan League

1610-1635	Comparing different propulsion configurations for low-speed ship maneuvering: a system-based approach, ***Federico Franciosa***	Flow Characteristics around a Hydrofoil according to a Groove on the Trailing Edge, ***Byeong Ju Kim***	Reliability Assessment of Monopile Foundations for Offshore Wind Turbines Considering Pile Head Displacement, ***Nianzhong Chen***	Exploring feasibility of UAV-Based Situational Awareness Support for Maritime Autonomous Surface Ships through Scenario-Based Sea Trials, ***Dong-eon Kim***
1635-1700	Deep Kernel Learning for Operational Limits of Autonomous Surface Vessels, ***Nathaniel Clemett***	Numerical Analysis of Scale Effects on Resistance and Propulsion Performance of the K-SUPRAMAX in Low-Speed Condition, ***Jae-Hyeon An***	Challenges met during the design of floating structures in the North Sea and the Barents Sea, ***Ove Tobias Gudmestad***	A Study on Ship Encounter Analysis for Environmental Adaptability Assessment of MASS Operations, ***Seunghyeon Lim***

Wednesday 22 October 2025 – Michigan League, 911 N. University Ave, Ann Arbor, MI 48109			
0900-1040	**Decarbonization** *Vandenberg Room*	**Seakeeping** *Hussey Room*	**Propeller Design** *Michigan Room*
0900-0925	Control Strategy for Kite Propulsion System of Coastal Vessels under Frequently Varying Wind, ***Bonggi Choi***	Blending Manoeuvring and Seakeeping: Heading-keeping Simulations for 5415M, ***Ruddy Kurnia***	Development of a High-Efficiency and Compact Contra-Rotating Rim-Driven Propulsor, ***Kazuki Hosono***
0925-0950	A Numerical Analysis of the Propulsion Efficiency Improvement Effect of Pre-Swirl Flow Control Fins (FCF), ***Hyunjun Kim***	Exact spectral calculations of wave-induced ship responses considering arbitrary speed-heading combinations in short-crested waves, ***Ulrik Nielsen***	Analysis of Wake Characteristics for Contra-Rotating Propellers by CFD, ***Sua Jeong***
0950-1015	The improvement of the accuracy of ship speed through water using a Multi Layered Doppler Sonar (MLDS), ***Yasuhiko Inukai***	Doppler Shift Approximation in Seakeeping Problems: A New Formulation for Ships Advancing at Any Forward Speed, ***Raphaël Mounet***	CFD Prediction of Cavitation Inception on Marine Propellers, ***Keun-Woo Shin***
1015-1040	Underwater Venting of Methanol Vapours: an Experimental and Numerical Study, ***T.J (Tim) Slangen***	Machine Learning Based Control Co-Optimization for Geometry and Power Take-off of a Point Absorber Wave Energy Converter, ***Weihan Lin***	Experimental and Numerical Study of the Behavioral Characteristics of Vortex Cavitation at the Tip of a Propeller Blade, ***Byoung-Kwon Ahn***
1040-1110	**Coffee Break, Michigan League Concourse, 2nd Floor**		
1110-1250	**Design Process** *Vandenberg Room*	**Payloads and Design** *Hussey Room*	**Structures** *Michigan Room*

Preliminary Schedule

Note: All paper and keynote rooms are on the 2nd floor of the Michigan League

1110-1135	Mapping Dependencies and Prioritizations in Maritime Advanced Nuclear Reactor Integration using an Analytical Network Process, ***Hal Berdichesky***	Performance of an Underwater Glider with Varying Wing Configurations, ***Bhagirathi Duvvuri***	Loading-Path Dependent Time- and Frequency-Domain Multiaxial Variable Amplitude Fatigue Analysis for Marine Structural Reliability, ***Zhigang Wei***
1135-1200	Integrating Safety Science into the Design of Future Ships, ***Erin van Rheenen***	Calculating the Safe Deployment of a VDS Considering Ship Motions and Sea Conditions, ***Jonas Feuerhahn***	Machine Learning-Assisted Fragility Quantification of Marine Vessels Under Hazards, ***Mohamed Soliman***
1200-1225	The Trawler as a Catch Platform: An Exploration of Design for Modularity, ***Jesper van der Meij***	CFD Assessment of Hydrodynamic Loads on Moored Vessels during ULCV Passages, ***Pedro Lopes***	NR613: New BV Rules for Bonded Assemblies, ***Stéphane Paboeuf***
1225-1250		The Consideration of Heeling Moments due to Shallow Water during the Calculation of the Roll Motion, ***Hannah Haugk***	A framework for calculating gust-induced fatigue damage in the support structure of a wind-assisted propulsion system, ***Mekete Mebratu***
1250-1350	**Lunch, Michigan League Ballroom**		
1400-1500	**Bus trip to the National Museum of the Great Lakes – Busses will leave from the side of the building**		
1500-1700	**Visit to the National Museum of the Great Lakes**		
1700-1800	**Bus trip to Detroit**		
1800-2000	**Conference Banquet - Detroit Institute of Arts**		
Thursday 23 October 2025 – Michigan League, 911 N. University Ave, Ann Arbor, MI 48109			
0900-1040	**Seakeeping** ***Vandenberg Room***	**Environmentally assisted propulsion & control** ***Hussey Room***	**Structures** ***Michigan Room***
0900-0925	Influence of Roll Motion on Added Resistance in Waves in Full and Ballast Load Conditions, ***Saori Yokota***	The importance of transverse second-order wave loads, a case study of a bulk carrier with wing sails in regular waves, ***Øyvind Rabliås***	A study on the collapse mechanism of double bottom structures under combined loads, ***Jinju Cui***
0925-0950	Assessing performance of Anti-Roll Tank for Ultra Large Containerships, ***Michael Johnson***	Study on Effect of Rotor Sail on Seakeeping and Manoeuvring of Ships, ***Heesung Lee***	Fatigue Crack Propagation in Stiffened Panels Under Variable Amplitude Loading, ***Mohamed Soliman***
0950-1015	Modeling a membrane based floating solar island in waves, ***Aurora Skare***	Evaluation of Power Saving Achieved by Rotor Sail Systems for Very Large Ore Carriers, ***Seungchul Shin***	Influence of Regional Wave Scatter Characteristics on Long-Term Sloshing Design Loads for LNG Cargo Tanks, ***Sang-Yeob Kim***

Preliminary Schedule

Note: All paper and keynote rooms are on the 2nd floor of the Michigan League

1015-1040	Study of the ship resistance during swarm operation based on biomimetics, ***Gisu Song***	Design of Ships with Wind Propulsion: new challenges and tools, **Gabriele Mazza**	A Method for Optimizing Pump Tower Design in LNG Tanks Considering Structural Safety, ***In-Chang Yeo***
1040-1110	**Coffee Break, Michigan League Concourse, 2nd Floor**		
1110-1250	**Propulsion** ***Vandenberg Room***	**Structures** ***Hussey Room***	
1110-1135	A numerical study on noise prediction and CIS determination using CFD, ***Byeong-U You***	Impact of Frame Type on the Sensitivity of Ice Load Measurements Systems, ***Bolun Zhu***	
1135-1200	Confirmation Trials of a Double Ended Ferry Driven by Voith Schneider Propulsors, ***Arie de Jager***	Validation of SCF Formulas for Joint Misalignments in Fatigue Design Rules of the Coast Guard and Navy, ***Tara Larkin***	
1200-1225	A Study on the Performance Estimation of a Flettner Rotor Installed on a Small Catamaran, ***SeongMo Yeon***	Application of Engineering Critical Assessment to an IMO Type C Liquefied CO 2 Tank Reflecting Cargo Tank Developments, ***Dong-in Kim***	
1225-1250	Uncertainty Analysis of CFD Simulations for the Added Resistance of an 1,800TEU Container Ship under Regular and Irregular Waves, ***Yechang Park***	A Robust Structural Stress Method and Applications in a K-Joint of Floating Wind Turbine Support Structure, ***Shengjia Wu***	
1250-1400	**Lunch, Michigan League Ballroom**		

*****End of PRADS 2025, we hope to see you at PRADS 2028!*****


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