

29 August

Chair: Thomas DeNucci (USCG Academy)

09:00h Ramesh Babu Govinderaj, Sastry Kandukuri, Eva Junghans (DNV)

Case Studies on Additive Manufacturing for Maritime Applications

09:30h Thomas Hipke (Fraunhofer IWU)

Metal Foams: Ready for Ship Building?

10:00h Morten Løvstad, Volker Bertram (DNV)

The Decarbonizing Quest for Future Bulk Carriers

10:30h coffee break

Chair: Tracy Plowman (DNV)

11:00h Malte Mittendorf, Ulrik Dam Nielsen, Harry B. Bingham (DTU),

Gaute Storhaug (DNV)

On the Determination of the Relative Wave Direction based on Measured Ship Responses using Deep Multi-Task Learning

11:30h Sven Albert, Thomas Hildebrandt, Maurits v.d. Boogaard, Giacomo Alessi, Benoit Mallol, Dirk Wunsch, Nathan Clero, Dario Amadori, Charles Hirsch (Numeca), Luca Zampieri (Neural Concept)

Using Machine Learning for Rapid Propeller Design Tools based on Numerical Series

12:00h Volker Bertram (DNV), Marcus Bentin (HS Emden/Leer)

Applying ANNs to Derive Empirical Design Formulas for Harbor Tugs

12:30h lunch

Lasagna Bolognese

Meat with balsamic vinegar, carrots gratin, salad

Panna Cotta

Chair: Lars Ravens (eCap)

13:30h Thomas DeNucci, Dianna Garfield, Walter Gnaan, Richard Gordon,

Joseph Zingarella, Daniel Brahan (USCG Academy)

Innovative E-Powered Asymmetrical Coastal Icebreaker Design

14:00h Jogchum Bruinsma (Nedstack)

SH2IPDRIVE - Sustainable Hydrogen Integrated Propulsion Drives

14:30h Jogchum Bruinsma, Cas Kluiters (Nedstack)

A Case Study for a Zero-Emission, Fuel-Cell driven Dry Cargo Vessel

15:00h coffee break

Chair: Jogchum Bruinsma (Nedstack)

15:30h Dejan Žagar, Franc Dimc (University of Ljubljana)

The Future of Biometrical Measurements on the Ship's Bridge: The Marine Pilots' Biometrical Response During Simulated Port Approach Navigation

16:00h Ken Goh (Knud E. Hansen)

Application of Virtual Reality Tools in Ship Design

16:30h Tracy Plowman, Ulrich Bernhardt (DNV)

Effective Digital Training Solutions to Support the Maritime Digital and Decarbonization Transitions

17:00h Volker Bertram (DNV)

Hey Porter, Hey Porter: Strategic Analysis for Naval Architectural Training in the 21st Century

17:30h **Alternative Fuels Workshop** (powered by eCap)

In the wine cellar opposite restaurant hall

30 August

Chair: David Connolly (Silverstream Technologies)

09:00h Ken Goh (Knud E. Hansen)

Innovative Platform for Optimising Renewable Energy Powered Ships

09:30h Ruben Paredes, Andrea Gaona, Andres Toala, José Marín-López (ESPOL), Raju Datla (Stevens Institute Technology), Joseph W. Pratt (Zero Emission Industries)

Zero-Emission Small High-Speed Craft Conceptual Design using NSGA-II Algorithm for Galápagos Interisland Service

10:00h Simon Hauschulz, Stefan Harries, Fabian Thies, Heinrich von Zadow (Friendship Systems)

Web-based Microservices for Fast Modeling and Easy Collaboration

10:30h coffee break

Chair: Lennart Cederberg (NoorCare)

- 11:00h Fabian Thies (Chalmers TU), Hannes Renzsch (Friendship Systems)
Hull Form Optimization for Wind-Powered Ships
- 11:30h Frederik C. Gerhardt, Da-Qing Li, Sofia Werner, Karolina Malmek (SSPA)
Levelling the Playing Field: A Numerical Platform for the Fair Comparison of Different Wind Propulsion Systems
- 12:00h Francesco Stella, Julien Morel (Computed Wingsail)
Aeolus Bag: Consequences of Device-Specific Wind Selection on the EEDI Contribution of WASP Devices

12:30h lunch

Spinach ravioli with cottage cheese, butter and sage
Baked stuffed pork, Spinach, Salad
Chocolate cake

Chair: Fabian Thies (Friendship Systems)

- 13:30h Josef Camilleri, David Connolly (Silverstream Technologies),
Adam Sobey, Dominic Hudson (Univ. Southampton)
Quantifying the Effect of Green Technologies on Ship Performance using Operational Data: Design of Experiments and Data Collection
- 14:00h Jonas W. Ringsberg, Fabian Thies (Chalmers TU)
Analysis of Uncertainties in the Prediction of Fuel Saving from WASP Installations
- 14:30h James Mason, Alejandro Gallego-Schmid (Univ Manchester)
Stochastic Uncertainty in Fuel-Optimised Ship Routing: How Weather Forecasts Hinder the Carbon Savings from Wind-Assisted Weather Routing
- 15:00h Announcement HIPER 2023
Hansa “Maritime Innovator” award given to Ken Goh
Hansa “Young Innovator” award given to Lars Ravens

15:10h coffee break

15:40h Forum: **Green & Smart Shipping - Vision 2050**

Panel: Lennart Cederberg
Ken Goh
David Connolly
Lars Ravens

31 August

Chair: Ken Goh (Knud E. Hansen)

- 09:00h Tim Heusinger von Waldegge, Dorothea Stübing (Fraunhofer),
Benjamin Emde, Stanislav Zimbelmann, Jörg Hermsdorf (LZH),
Markus Baumann (Laserline)
Underwater Hull Cleaning by Laser: Feasibility and Prospects
- 09:30h Bart Salters, Merijn Wijnen (Philips), Kevin Reynolds (Akzonobel)
UV-C Anti-Fouling Solution – Design, Experiments and Results of Next Generation Samples
- 10:00h Xavier Mayorga, Jan Kelling (Hasytec)
Keeping EEDI and CII in CHEK through Intelligent Ultrasonic Biofouling Protection
- 10:30h David Connolly (Silverstream Technologies)
Status of Air Lubrication Technology

11:00h coffee break

Chair: Xavier Mayorga (Hasytec)

- 11:30h Syb ten Cate Hoedemaker (Maritime Battery Forum)
Current Status of Maritime Batteries and Future Outlook
- 12:00h Lars Ravens, Frederike Engels (eCap Marine)
Clean Power for the Maritime World
- 12:30h Vincent Schneider, Ching Nok Au, Akif Budak, Johannes Oeffner (Fraunhofer CML)
The Development of a Battery Hot Swap Prototype for Use on the Autonomous Surface Vehicle SeaML:SeaLion

13:00h special closing lunch

Risotto with mixed mushrooms
Veal in chianti wine, sautéed potatoes, and mixed salad
Tiramisu
Wine, water
Coffee (espresso)