



S&E 2026

4th

SHIPPING & ENVIRONMENT CONFERENCE

September 21-24, 2026

**Chalmers Conference Center,
Gothenburg, Sweden**

Conference Programme

Hosted by

CHALMERS | OCEAN

Registration starts on Monday, 21st September 2026 at 09:00 (incl. breakfast)10:00
10:20**Opening Ceremony**

- Ida-Maja Hassellöv, Conference Chair | Chalmers University of Technology & Mats Lundqvist, Vice President | Chalmers University of Technology
- Mattias Rust | Government Offices of Sweden
- Håkan Eriksson | Deputy Lord Mayor of Gothenburg & Renée Bengtsson | President of the Regional Council

10:20
11:00**Polarized Environmental Topics | Chair: Ida-Maja Hassellöv**

- Prof. Martin Hultman | Similarities to climate change discussions where scientific studies are discredited
- Prof. Tristan Smith | Update on IMO Net Zero Framework discussions

*Presentation*11:00
11:15 **Coffee Break**11:15
12:30**Governance, Trust, Networking : How to Support Decision Making | Moderator: Selma Brynolf**

- Hulda Winnes | Swedish Transport Agency
- Chris Vivian | Vice chair of GESAMP
- Samy Djavidnia | European Maritime Safety Agency
- Jette Krause | Joint Research Centre, European Commission
- Annukka Lehtikoinen | Kotka Maritime Research Centre
- Jukka-Pekka Jalkanen | Finnish Meteorological Institute
- Tristan Smith | University College London

*Presentations & panel discussion*12:30
13:30 **Lunch Break**13:30
14:15**Ethical Use of Data & Method: Scientific Evidence to Policy | Moderator: Fayas Malik Kanchiralla**

- Sonia Yeh | Chalmers University of Technology
- Jette Krause | Joint Research Centre, European Commission
- Anna Gerometta | Cittadini per l'Aria onlus
- Leon Boschman | Chalmers University of Technology

*Panel discussion*14:15
15:00**Shipping-related perspectives of the regional sea conventions and their interactions – examples from HELCOM and OSPAR working groups | Moderator: Ida-Maja Hassellöv**

- Katja Broeg | The Federal Maritime and Hydrographic Agency, Germany
- Jonas Pålsson | The Swedish Agency for Marine and Water Management

*Presentations & panel discussion*15:00
15:30 **Coffee Break**15:30
17:00**Science for Decision Support of Environmental Impacts from Shipping: Scoping Whitepaper | Moderators: Ida-Maja Hassellöv, Selma Brynolf, and Amanda Nylund**

- What are the short-term and long-term knowledge gaps?
- Best practice or science policy interactions
- What best-practices would you like to share?

Workshop

18:30

**Network Dinner:** Icebreaker Ostindiefararen



09:00 09:15	Conference Opening Statement Room RunAn Anna Ledin Director General Swedish Agency for Marine and Water Management		S&E 2021
09:15 09:45	Keynote Torbjörn Rydbergh, Marine Benchmark RunAN Global Shipping Trends: Trade Flows and Environmental Implications		
09:50 10:50	Session 1: Shipping Pressures RunAn Chair: Ida-Maja Hassellöv 1: Impact assessment of ship scrubber effluents reveals adverse effects at realistic environmental concentrations Anna Lunde Hermansson 2: Cross-scale shipping pressures and ecological data gaps in marine biodiversity hotspots Bénédicte Madon ❑ Event pitch and Poster pitch session 1		
10:50 11:20	 Coffee Break		
11:20 12:20	Session 2: Regulatory Frameworks RunAn Chair: Selma Brynolf 3: Potential environmental effects of FuelEU Maritime in shipping to/from Sweden Nils Jutblad 4: Do energy-efficient powertrains get penalised in IMO LCA guidelines? Fayaz Malik Kanchiralla 5: Climate impacts of Arctic cruise ship tourism: the law-science interface A. Stella Ebbesmeyer	Session 3: Cumulative Impacts of Shipping Catella Chair: Eva-Lotta Sundblad 6: Impacts of shipping on air pollution in the UK Daniel Mehlig 7: Fate and effect of a shipping container spill on the Canadian Pacific coast Cathryn Murray 8: Effects of ammonia on marine food webs: a copepod case study Themistoklis Konstantinopoulos	
12:20 14:00	 Lunch Break		
14:00 15:00	Session 4: Emission Factors and Modelling Valdemar Chair: Volker Matthias 9: Emission factor dataset for ships covering conventional fuels, biofuels, alternative fuels and emission control Technologies Achilleas Grigoriadis 10: Real-time maritime emissions and plume dispersion modelling for port-city air quality Emanuele Sarpero 11: A new meta-model to rapidly assess global emissions from shipping Robin Smit	Session 5: Marine Ecotoxicity Catella Chair: Cathryn Murray 12: Total loads and hazard assessment of chemicals from shipping to the OSPAR marine environment Roland Pfeiffer 13: Population-specific mortality of <i>Acartia</i> spp. in mixtures of shipping-relevant contaminants Emilie Skrubbeltrang 14: Standard ecotoxicological tests fall short for maritime pollution effects Marja Koski	
15:00 15:30	 Coffee Break		
15:30 16:30	Session 6: Risk Assessment Valdemar Chair: Jana Moldanova 15: Ship Emission Metrics and Environmental Risk Assessment in Ports: A PrE-PARE Approach Filip Bojić 16: Hybrid threats and holistic risk in strategic maritime chokepoints: an integrated risk assessment framework (IRAF) Rehman Altaf Ur 17: From air to sea: legal incoherence and risk governance of scrubber discharges in the Baltic Sea Niels Krabbe	Session 7: Emissions to Air Catella Chair: Danielle Vandinther 18: Measured exhaust emissions and near-field LBM dispersion around RoPax vessels Arnaud Frobert 19: Airborne measurements of real-world black carbon emissions from ships Ward Van Roy 20: Methane and NOx emissions from LNG-powered ships: long-term bridge-based monitoring Johan Mellqvist	
16:30 18:00	Poster Session 1 Emissions to Air and Decarbonisation	Side Event I Catella Can an index capture ships' impact on the marine environment? Workshop on CSI"	16:30 17:30
17:00 19:00	Networking & Snacks		



09:00
09:30 **Keynote** | Wayne Nastri, South Coast Air Quality Management District | RunAN
Shipping Emissions: Global Regulation vs. Local Air Quality Management?

09:30
10:50 **Session 8: Decarbonization and Emissions** | RunAn | Chair: Kent Salo
21: Marine fuel choices under the proposed IMO Net-Zero Framework | [Fayyas Malik Kanchiralla](#)
22: Decadal Trends in Maritime Aerosols and Their Climate Impacts over Indian Coastal Regions | [Nandhakumar S K](#)
23: Nitrogen emission control area: compliance and urban exposure (nested EU-to-city modelling) | [Jana Moldanova](#)
☐ **Poster pitch session 2**

10:50
11:20 **Coffee Break**

11:20
12:20 **Session 9: Emission to Water** | RunAn | Chair: Anna Lunde Hermansson
24: A loophole in the protection of the sea: unintended impacts of modifying active-substance ballast water treatment system | [Frank Stuer-Lauridsen](#)
25: A Bayesian framework for inferring tank-washing discharges from chemical tankers using AIS data | [Chi Zhang](#)
26: Cost-Benefit Analysis of Alternative Ship-generated Greywater Management Scenarios from Cradle-to-Grave | [Jenette Tifuh Mujingni](#)

Session 10: Electrification and Onshore power in ports | Catella | Chair: Fayas Malik Kanchiralla
27: Optimizing battery size and charging infrastructure for public ferry fleet electrification | [Yi He](#)
28: Shore-power emission reduction potential – Port of Gothenburg case study | [Sunna Forslund](#)
29: Port electrification: definitions, pathways and grid impact assessment | [Xiaohui Li](#)

12:20
14:00 **Lunch Break**

14:00
15:00 **Session 12: Ship Wakes and Noise** | Valdemar | Chair: Amanda Nylund
30: Assessing the impact of shipping noise on the ocean soundscape – comparison of modelling strategies | [Rickard Bensow](#)
31: Ship-induced turbulence as a driver of bottom-oxygen variability in the Stockholm Archipelago | [Alexandra Schloss](#)
32: Hydrodynamic study on ship-to-ship bunkering: gap resonances in waves and shear currents | [Yunfeng Ding](#)

Session 11: Life Cycle Assessment of Marine Fuels and Powertrains | Catella | Chair: Julia Hansson
33: LCA of alternative maritime fuels for the Norwegian coastal fleet | [Swantje Krupp](#)
34: Best practices in life cycle assessment while assessing exhaust abatement technologies | [Selma Brynolf](#)
35: Fishing for facts and figures – negotiations in LCAs | [Hanna Varvne](#)

15:00
15:30 **Coffee Break**

15:30
17:00 **Poster Session 2**
Marine Environment, Risk Assessment, and Policy

16:00
17:00 **Side Event 2 | Catella**
Planetary Boundaries assessment of shipping fuels: Interactive workshop

18:30 **Universeum + Gala Dinner**

Wi-Fi login: Chalmers_Guest



09:00
09:30

Keynote | Cathryn C. Murray, Fisheries and Oceans Canada | RunAn
Investigating the Hidden Depths of the Environmental Effects of Shipping

09:30
09:50

Virtual Reality Application in Naval Architecture | Dimitrios Sykas

09:50
10:50

Session 13: Socio-Economic Assessment | RunAn | Chair: Johan Mellqvist
36: Bottom-up approach to estimating policy-induced changes in GHG and air-pollution exposure | [Nanna Fukushima](#)
37: Socio-economic cost-benefit analysis assessing present and future European shipping | [Rasmus Parsmo](#)
38: Data-Driven Trim Optimization in Fleet Operations | [Alida Abbo](#)

Session 14: Marine Environment | Catella | Chair: Peiyu Hou
39: Sensitivity of a North Sea ecosystem model to shipping-derived nitrogen deposition | [Megan McNicol](#)
40: A science-based indicator framework to assess cumulative maritime impacts on marine biodiversity | [Mary Wisz](#)
41: Modelling the fate of microplastics discharged from shipping in the Orust-Tjörn fjords | [Thisal Sugathapala](#)

10:50
11:20

Coffee Break

11:20
12:20

Session 15: Shipping Decarbonization | RunAn | Chair: Jukka-Pekka Jalkanen
42: Availability and spatial distribution of marine electro-fuel supply in Northern Europe | [Elin Malmgren](#)
43: Biofuels in Iceland's fishing fleet: development and deployment potential | [Matt Dyck](#)
44: Backcasting to reach fossil-free shipping by 2035 | [Sven Borén](#)

Session 16: Air Pollution and Deposition | Catella | Chair: Erik Fridell
45: Low loads, high emissions – the redundancy dilemma | [Kent Salo](#)
46: Monitoring of shipping emissions and atmospheric pollutants from a wind farm platform in the North Sea: first results of the SEMPAS project | [Gytha Mettepenningen](#)
47: Future impacts of shipping emissions on atmospheric deposition of nitrogen, sulphur and metals to European seas | [Sara Jutterström](#)

12:20
13:30

Lunch Break

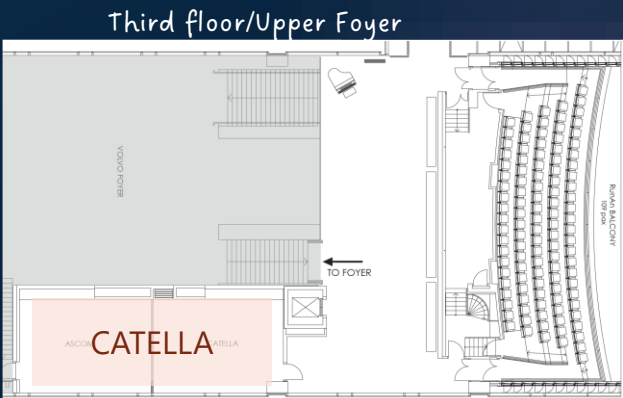
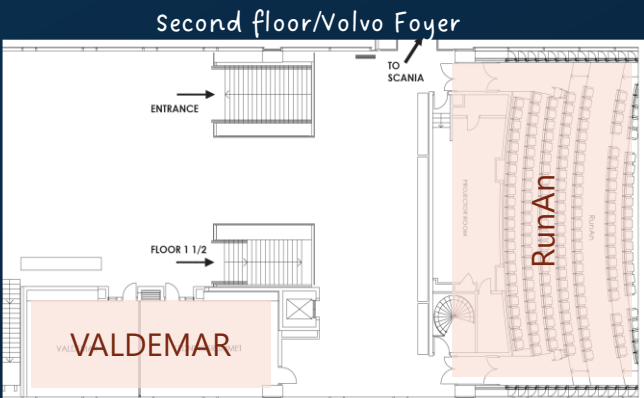
13:30
14:30

Panel Discussion on Research Funding
Thomas Nilsson | Swedish Research Council FORMAS;
Anna Svensson | Greencarrier;
Teppo Heiskanen | Chalmers University of Technology

14:30
15:00

Closing Ceremony

Room location map: Chalmers Conference Centre, Chalmersplatsen 1





Poster Session and Events

Side Events:

Event I (22 Sep): Can an index capture ships' impact on the marine environment? An interactive workshop on Clean Shipping Index | [Elin Malmgren](#)

Event II (23 Sep): Interactive workshop: Planetary Boundaries assessment of shipping fuels | [James Kershaw](#)

Event III (Poster area): Virtual Reality Application in Naval Architecture | [Dimitrios Sykas](#)

Event IV (Poster): ICES WGSHP –Shipping Impacts in the Marine Environment | [Amanda Nylund](#)

Poster Session 1: Tue, 22 Sep | Emissions to Air and Decarbonisation

48: Forced evaporation of bilgewater: cross-media environmental risks | [Pianpian Wu](#)

49: Air-quality exposure benefits of an LNG fleet transition: a sensitivity analysis for Hamburg | [Ronny Badeke](#)

50: Spatial correction of AIS-based ship emission estimates in the MoSES system | [Sophie Hannah Krause](#)

51: Methanol as a major maritime fuel: modification of emission patterns in the North and Baltic Seas | [Volker Matthias](#)

52: Improving detection of SO₂ emissions from marine traffic using remote sniffer techniques | [Vladimir Conde](#)

53: Renewable retrofitting - adopting ammonia as an energy carrier | [Gerben Overzet](#)

54: A planetary-boundaries assessment of future shipping | [James Kershaw](#)

55: From Shipping Emissions to Air Pollution Episodes: A Multi-method Assessment of Shipping Pollution Impact on the Air Quality of the Piraeus Region | [Achilleas Grigoriadis](#)

56: Non-CO₂ correlated hydrocarbon emissions measured from LNG-powered ships | [Mikko Heikkilä](#)

57: Estimation of exhaust-gas emissions along inland waterways in Germany | [Daniel Weber](#)

58: Seasonal Marine Aerosol Dispersion and Its Relationship with Renewable Energy Deployment in Indian Coastal Ports | [Nandhakumar S K](#)

59: Robust Port Scheduling under Cyber-Physical Disruptions: A Two-Stage Model with Partial Revelation | [Yujia Shi](#)

60: Environmental pricing strategies at European ports: A competitive factor to attract more traffic? | [Marta Gonzalez-Aregall](#)

Poster Session 2: Wed, 23 Sep | Marine Environment, Risk Assessment, and Policy

61: Challenges in assessing the environmental risks of Annex II product tank cleaning | [Sofia Wartenberg](#)

62: Real-time monitoring of recreational boat speed and corresponding noise mapping | [Qi Wang](#)

63: Monitoring of invasive species in Northern European ports: targeted detection and protocol improvements | [Pauline Bollongino](#)

64: Modelling of scrubber discharge (MoSAb): impact on the marine environment and possible measures | [Katja Broeg](#)

65: Assessing Chemical Hazards and Environmental Emissions from Marine Hull Coatings on the EU Market | [Peiyu Hou](#)

66: Aligning high-resolution spatial modelling of shipping discharges with environmental-status monitoring in Swedish waters | [Roland Pfeiffer](#)

67: Towards sustainable ship-hull maintenance: expanding HullMASTER decision-support tool | [Lena Granhag](#)

68: Review of existing in-water cleaning guidelines and limitations | [Marion Vial](#)

69: The challenge of hull biofouling: Bridging biosecurity, climate policy and ship performance | [Jennifer Ardin](#)

70: Environmental risk assessment of disinfection by-products in treated ballast water | [Anna Lunde Hermansson](#)

71: Frugal approaches to probing transient signatures of ship wakes and chemical pollution | [Andreas Gondikas](#)

72: A holistic sustainability assessment framework for autonomous shipping systems | [Rana Saha](#)

73: Integrating science into legal risk assessment: shipping impacts on biodiversity under the BBNJ Agreement | [Niels Krabbe](#)



S&E 2026

Scientific Committee

Amanda Nylund | Swedish Meteorological and Hydrological Institute
Anna Lunde Hermansson | RWTH Aachen University
Cathryn C. Murray | Fisheries and Oceans Canada
Danielle Van Dinther | TNO
Elisa Giubilato | Ca' Foscari University
Erik Fridell | IVL Swedish Environmental Research Institute
Eva-Lotta Sundblad | Swedish Institute for the Marine Environment
Fayas Malik Kanchiralla | Chalmers University of Technology
Ida-Maja Hassellöv | Chalmers University of Technology
Jana Moldanova | IVL Swedish Environmental Research Institute
Johan Mellqvist | Chalmers University of Technology
Jukka-Pekka Jalkanen | Finnish Meteorological Institute
Julia Hansson | IVL Swedish Environmental Research Institute
Leonidas Ntziachristos | Aristotle University of Thessaloniki
Peiyu Hou | Chalmers University of Technology
Selma Brynolf | Chalmers University of Technology
Volker Matthias | Helmholtz-Zentrum hereon GmbH
Youngrong Kim | Nanyang Technological University

Conference Host

CHALMERS | OCEAN

Conference Partners



Swedish Institute for
the Marine Environment



GREENCARRIER