



S&E 2026

4th

SHIPPING & ENVIRONMENT CONFERENCE

September 21-24, 2026

**Chalmers Conference Center,
Gothenburg, Sweden**

Preliminary Conference Programme

Hosted by

CHALMERS | OCEAN



Registration starts on Monday, 21st September 2026 at 09:00

10:00 10:20	Opening Ceremony
10:20 11:15	Strategic Session 1: Governance, trust, networking – how to support decision making
11:30 11:45	Coffee Break
11:45 12:30	Panel Discussion 1: Ethical Use of Data in Science Communication: From Evidence to Policy
12:30 13:30	Lunch Break
13:30 14:30	Strategic Session 2: Interaction between different regional seas conventions
14:30 15:00	Special Session: Scrubber – a polarized issue
15:00 15:15	Coffee Break
15:15 15:00	Mural Workshop
16:00 17:00	Panel Discussion 2: Science for decision support related to shipping
18:30	Icebreaker Ostindiefararen



09:00
09:15

Conference Opening Statement | Room RunAn

09:15
09:45

Keynote | Torbjörn Rydbergh, Marine Benchmark | RunAN

09:50
10:50

Session 1 | RunAn | Ida-Maja Hassellöv

35 • Impact assessment of ship scrubber effluents reveals adverse effects at realistic environmental concentrations | Anna Lunde Hermansson

82 • Cross-scale shipping pressures and ecological data gaps in marine biodiversity hotspots | Bénédicte Madon

☐ Poster pitch session 1 | Fayas

10:50
11:20

Coffee Break

11:20
12:20

Session 2: Regulatory Frameworks | RunAn | Selma Brynolf

45 • Potential environmental effects of FuelEU Maritime in shipping to/from Sweden | Nils Jutblad

18 • Do energy-efficient powertrains get penalised in IMO LCA guidelines? | Fayas Malik Kanchiralla

61 • Climate impacts of Arctic cruise ship tourism: the law-science interface | A. Stella Ebbersmeyer

Session 3: Cumulative Impacts of Shipping | Catella | Eva-Lotta Sundblad

67 • To be confirmed

21 • Fate and effect of a shipping container spill on the Canadian Pacific coast | Cathryn Murray

10 • 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 | Volker Matthias

12 • To be confirmed

11 • Real-time maritime emissions and plume dispersion modelling for port-city air quality | Emanuele Sarpero

59 • A new meta-model to rapidly assess global emissions from shipping | Robin Smit

Session 5: Marine Ecotoxicity | Catella | Cathryn Murray

65 • Total loads and hazard assessment of chemicals from shipping to the OSPAR marine environment | Roland Pfeiffer

32 • Population-specific mortality of Acartia spp. in mixtures of shipping-relevant contaminants | Emilie Skrubbeltrang

23 • 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 | Jana Moldanova

5 • Ship Emission Metrics and Environmental Risk Assessment in Ports: A PrE-PARE Approach | Filip Bojić

57 • Hybrid threats and holistic risk in strategic maritime chokepoints: an integrated risk assessment framework (IRAF) | Rehman Altaf Ur

77 • From air to sea: legal incoherence and risk governance of scrubber discharges in the Baltic Sea | Niels Krabbe

Session 7: Emissions to Air | Catella | Danielle Vandinther

80 • Measured exhaust emissions and near-field LBM dispersion around RoPax vessels | Arnaud Frobert

20 • Airborne measurements of real-world black carbon emissions from ships | Ward Van Roy

40 • Methane and NOx emissions from LNG-powered ships: long-term bridge-based monitoring | Johan Mellqvist

16:30
18:00

Poster Session 1

17:00
19:00

Networking & Snacks



09:00 09:30	Keynote Wayne Nastri, South Coast Air Quality Management District RunAN
09:30 10:50	Session 8 RunAn Erik Fridel 28 · Marine fuel choices under the proposed IMO Net-Zero Framework <i>Fayas Malik Kanchiralla</i> 43 · To be confirmed 62 · Nitrogen emission control area: compliance and urban exposure (nested EU-to-city modelling) <i>Jana Moldanova</i> ☐ Poster pitch session 2 Peiyu
10:50 11:20	Coffee Break
11:20 12:20	Session 9: Emission to Water RunAn Anna Lunde Hermansson 4 · A loophole in the protection of the sea: unintended impacts of modifying active-substance ballast water treatment systems <i>Frank Stuer-Lauridsen</i> 16 · A Bayesian framework for inferring tank-washing discharges from chemical tankers using AIS data <i>Chi Zhang</i> 75 · Cost-Benefit Analysis of Alternative Ship-generated Greywater Management Scenarios from Cradle-to-Grave <i>Jenette Tifuh Mujeingni</i>
	Session 10: Electrification and Onshore power Catella Fayas Malik Kanchiralla 13 · Optimizing battery size and charging infrastructure for public ferry fleet electrification <i>Yi He</i> 22 · Shore-power emission reduction potential – Port of Gothenburg case study <i>Sunna Forslund</i> 71 · Port electrification: definitions, pathways and grid impact assessment <i>Xiaohui Li</i>
12:20 14:00	Lunch Break
14:00 15:00	Session 11: LCA of Marine Fuels and Powertrains Valdemar Julia Hansson 24 · LCA of alternative maritime fuels for the Norwegian coastal fleet <i>Swantje Krupp</i> 72 · Best practices in LCA while assessing exhaust abatement technologies <i>Selma Brynolf</i> 15 · Fishing for facts and figures – negotiations in LCAs <i>Hanna Varvne</i>
	Session 12: Ship Wakes, Noise and Hydrodynamics Catella Amanda Nylund 33 · Assessing the impact of shipping noise on the ocean soundscape – comparison of modelling strategies <i>Rickard Bensow</i> 56 · To be confirmed 6 · Hydrodynamic study on ship-to-ship bunkering: gap resonances in waves and shear currents <i>Yunfeng Ding</i>
15:00 15:30	Coffee Break
15:30 17:00	Poster Session 2
16:00 17:00	Side Event I Catella
18:00 23:00	Universeum + Gala Dinner



09:00
09:30 **Keynote** | Cathryn C. Murray, Fisheries and Oceans Canada | RunAn

09:30
09:50 **Virtual Reality Application in Naval Architecture**

09:50
10:50 **Session 13: Socio-Economic Assessment | RunAn | Johan Mellqvist**
49 • Bottom-up approach to estimating policy-induced changes in GHG and air-pollution exposure | *Nanna Fukushima*
64 • Socio-economic cost-benefit analysis assessing present and future European shipping | *Rasmus Parsmo*
41 • To be confirmed

Session 14: Marine Environment | Catella | Elisa Giubilato
Open slot
79 • To be confirmed
19 • 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 | Jukka-Pekka Jalkanen**
46 • Availability and spatial distribution of marine electrofuel supply in Northern Europe | *Elin Malmgren*
58 • Biofuels in Iceland's fishing fleet: development and deployment potential | *Matt Dyck*
30 • Backcasting to reach fossil-free shipping by 2035 | *Sven Borén*

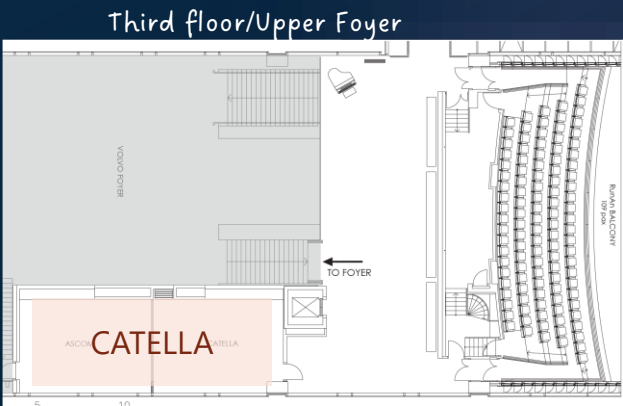
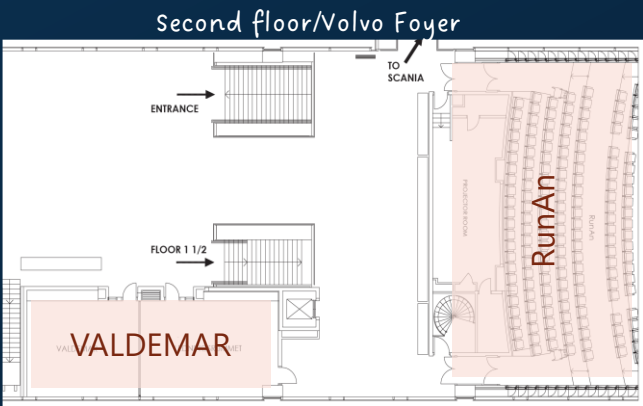
Session 16: Air Pollution and Deposition | Catella | Leonidas Ntziachristos
54 • Low loads, high emissions – the redundancy dilemma | *Kent Salo*
8 • Sensitivity of a North Sea ecosystem model to shipping-derived nitrogen deposition | *Megan McNicol*
68 • Future impacts of shipping emissions on atmospheric deposition of nitrogen, sulphur and metals to European seas | *Sara Jutterström*

12:10
13:30 **Lunch Break**

13:30
14:30 **Side event II**

14:30
15:00 **Closing Ceremony**

Room location map: Chalmers Conference Centre



Poster Sessions



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

9 • Forced evaporation of bilgewater: cross-media environmental risks | *Pianpian Wu & Camilla Hedberg*

17 • Air-quality exposure benefits of an LNG fleet transition: a sensitivity analysis for Hamburg | *Ronny Badeke*

26 • Spatial correction of AIS-based ship emission estimates in the MoSES system | *Sophie Hannah Krause*

34 • Shipping emissions and atmospheric pollutants from a North Sea wind-farm platform: SEMPAS project | *Gytha Mettepenningen*

37 • To be confirmed

44 • Methanol as a major maritime fuel: modification of emission patterns in the North and Baltic Seas | *Volker Matthias*

47 • Improving detection of SO₂ emissions from marine traffic using remote sniffer techniques | *Vladimir Conde*

52 • To be confirmed

63 • Non-CO₂ correlated hydrocarbon emissions measured from LNG-powered ships | *Mikko Heikkilä*

83 • Estimation of exhaust-gas emissions along inland waterways in Germany | *Daniel Weber*

2 • Data-Driven Trim Optimization in Fleet Operations | *Alida Abbo*

38 • To be confirmed

42 • To be confirmed

53 • To be confirmed

60 • Infrastructure-aware vessel and tugboat scheduling | *Yujia Shi*

85 • Environmental pricing strategies at European ports: A competitive factor to attract more traffic? | *Marta Gonzalez-Aregall*

78 • A planetary-boundaries assessment of future shipping | *James Kershaw*

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

7 • Real-time monitoring of recreational boat speed and corresponding noise mapping | *Qi Wang*

25 • Monitoring of invasive species in Northern European ports: targeted detection and protocol improvements | *Pauline Bollongino*

27 • Modelling of scrubber discharge (MoSAb): impact on the marine environment and possible measures | *Katja Broeg*

29 • Ship-induced turbulence as a driver of bottom-oxygen variability in the Stockholm Archipelago | *Alexandra Schloss*

39 • To be confirmed

48 • To be confirmed

50 • Chemical mapping and hazard assessment of 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*

69 • Towards sustainable ship-hull maintenance: expanding HullMASTER decision-support tool | *Lena Granhag*

70 • Beyond the Horizon: bibliometric analysis of environmental pressures from shipping | *Cathryn Murray*

74 • Environmental risk assessment of disinfection by-products in treated ballast water | *Anna Lunde Hermansson*

81 • Frugal approaches to probing transient signatures of ship wakes and chemical pollution | *Andreas Gondikas*

36 • To be confirmed

55 • Challenges in assessing the environmental risks of Annex II product tank cleaning | *Sofia Wartenberg*

73 • A holistic sustainability assessment framework for autonomous shipping systems | *Rana Saha*

76 • Integrating science into legal risk assessment: shipping impacts on biodiversity under the BBNJ Agreement | *Niels Krabbe*

84 • Review of existing in-water cleaning guidelines and limitations | *Marion Vial*



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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

Host Organization

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the Marine Environment