Wednesday, 4 September

08:30 – 11:30  Science to policy workshop (invitation only)

11:30 – 12:40  Registration for the participants
12:40 – 13:00  Conference opening

Symposium on Scenarios and Policy Options for Sustainable Shipping (POL)

Conveners: Jana Moldanová (IVL), Markus Helavuori (HELCOM secretariat)

13:00 – 14:30  Keynotes POL

James Corbett, University of Delaware, USA
Shipping and environment: Science and Policy for Insight and Discovery

Anita Mäkinen, Finnish Transport and Communications Agency, FI
From a Recognized Regional Problem to the Global Solution with Scientific Assistance

Simon K.W. Ng, Business Environment Council, HK
Ship Emissions Control Policymaking: Lessons from Hong Kong

14:30 – 15:00  Coffee-break

15:00 – 16:15  Oral session POL

15:00 – 15:15  Erik Ytreberg: Economic evaluation of the impacts of shipping


15:30 – 15:45  Jana Moldanová: Environmental impact assessment of operational shipping in the Baltic Sea region

15:45 – 16:00  Yanni Zhang: Compliance and port air quality features of ship fuel switching regulation: by a field observation in Bohai, China

16:00 – 16:15  Erik Fridell: Presentation of the project SCIPPER
Wednesday, 4 September (cont.)

16:15 – 16:30  Break
16:30 – 16:45  presentation of outcomes of the Science to policy workshop
16:45 – 18:00  Discussion panel ’Policy measures for sustainable shipping’
18:00 – 19:30  Icebreaker

Thursday, 5 September

Emissions and abatement measures (EAM)
Conveners: Johan Mellqvist (Chalmers University of Technology), Erik Fridell (IVL)

09:00 – 09:50  Keynote EAM
Per S. Daling, SINTEF, NO
Weathering Behaviour and Oil Spill Response Options For “New Generation” Of Low Sulphur Marine Fuel Oils

Johan Mellqvist / Alexander C. Barber
Chalmers University of Technology, SE / California Air Resource Board, USA
Compliance monitoring in California and US

09:50 – 10:20  Oral session EAM
09:50 – 10:05  Johan Mellqvist: Emissions of gases and particles from ships observed by remote measurements from fixed and airborne platforms in the Baltic sea and North Sea
10:05 – 10:20  Ward Van Roy: Airborne Marpol Annex VI Monitoring in Belgium

10:20 – 10:50  Coffee break
Thursday, 5 September (cont.)

10:50 – 11:50  Oral session EAM
10:50 – 11:05  Andreas Weigelt: MARPOL-VI compliance monitoring of ships in German waters – results from five years of operation
11:20 – 11:35  Cosmin Delea: Development of a Mobile Environmental Sensory Unit Prototype
11:35 – 11:50  Hanna Bach: Low- and zero-carbon energy solutions in Norwegian coastal maritime transport: a technological innovation system analysis

11:50 – 12:50  Lunch

Atmospheric processes (ATM)
Conveners: Volker Matthias (Helmholtz-Zentrum Geesthacht), Michael Gauss (Met Norway)

12:50 – 13:20  Keynote ATM
Huan Liu, Tsinghua University, CN
Shipping and atmosphere in Anthropocene

13:20 – 14:20  Oral session ATM
13:20 – 13:35  Yan Zhang: Current status and Future projection of Shipping emissions and their environmental and health effects in YRD, China
13:35 – 13:50  Sofia I.V. Sousa: Cause-specific mortality from shipping-related PM2.5 in the Iberian Peninsula
13:50 – 14:05  Jan Eiof Jonson: Effects of ship emissions from different sea areas on European pollution levels
14:05 – 14:20  Alexandra Monteiro: AIRSHIP project: impact of shipping emissions on air quality in a changing climate
Thursday, 5 September (cont.)

14:20 – 14:40  Break

14:40 – 15:10  Oral session ATM

14:40 – 14:55  Ronny Badeke: Microscale Ship Plume Dispersion Modeling for Harbor Areas

14:55 – 15:10  Adam Kristensson: Very low population exposure to black carbon from open sea sailing vessels in SECA

Poster session
Conveners: Markus Quante (Helmholtz-Zentrum Geesthacht), Anna Rutgersson (University of Uppsala)

15:10 – 16:00  Poster flash talks

16:00 – 17:30  Poster session & coffee

18:30  Conference dinner (Hyllan Chalmers Kårhus, Sven Hultins gata 4, 412 58 Göteborg)

Friday, 6 September

Marine Impacts (MARI)
Conveners: Ida-Maja Hassellöv (Chalmers University of Technology), David Turner (University of Gothenburg) and Jukka-Pekka Jalkanen (Finnish Meteorological Institute)

09:00 – 10:05  Keynotes

Irene Del Barrio Alvarellos, EEA
Is the status of Europe’s marine environment affected by the shipping and ports?

Thomas Folegot, Quiet-Oceans, FR
Underwater noise impacts from shipping: tools, standards and emerging regulation
Friday, 6 September (cont.)

10:05 – 10:35  Oral session ATM & EAM
10:05 – 10:20  Sef van den Elshout: The impact of the SECA on SO₂ and heavy metal concentrations - Evidence from air quality monitoring in Dutch ports
10:20 – 10:35  Folkard Wittrock: Monitoring shipping emissions in the German Bight using remote sensing and in situ measurements

10:35 – 11:00  Coffee-break

11:00 – 12:00  Oral session MARI
11:00 – 11:15  Jukka-Pekka Jalkanen: Emissions of underwater noise, atmospheric pollutants and discharges from Baltic Sea shipping in 2006-2018
11:15 – 11:30  Hulda Winnes: Environmental risks from increased use of marine exhaust gas scrubbers
11:30 – 11:45  Amanda T. Nylund: Evidence of ship induced vertical mixing in ship lanes
11:45 – 12:00  Sara Jutterström: The impact of nitrogen and sulphur emissions from shipping on exceedances of critical loads in the Baltic Sea region

12:00 – 12:30  Closing remarks
12:30        Lunch, end of the conference
Poster session:

**POS-01: Andreas Weigelt**: Sulphur emission compliance monitoring of ships in German waters – results from five years of operation

**POS-02: Kristina Holmgren**: Emissions reductions and costs for measures abating air pollution from shipping

**POS-03: Armin Aulinger**: Emission factors for inland vessels derived from on-board measurements

**POS-04: Daniel Alexander Schwarzkopf**: A new ship emission model and its application in Europe and East Asia

**POS-05: Simone Griesel**: The German ship emission compliance-monitoring network – technical details

**POS-06: Vladimir Conde**: Emission factors of $\text{SO}_2$, $\text{NO}_x$ and Particles measured from ships in the Baltic Sea Sulphur Emission Control Area (SECA)

**POS-07: Johannes Passig**: Detailed chemical investigation of bunker fuels

**POS-08: Alexis Merlaud**: $\text{NO}_2$ and $\text{SO}_2$ mapping with the Small Whiskbroom Imager for atmospheric composition monitorinG (SWING)

**POS-09: Luis Santos**: Investigations of potential cloud forming particles from ship emissions and influences of present and future marine fuel regulations
Poster session:

**POS-10: Volker Matthias**: Shipping contributions to air quality in the Baltic Sea region: Evaluation and comparison of results from three chemistry transport model systems

**POS-11: M.O.P. Ramacher**: Contributions of shipping and traffic emissions to city scale NO$_2$ and PM$_{2.5}$ exposure in Hamburg

**POS-12: Dinis Reis Oliveira**: To clean or not to clean: management options for biofouling on ship hulls

**POS-13: Børge Heggen Johansen**: A scalable and preference-based environmental indicator for cruise- and large passenger ships at berth or anchor in ports at tourism destinations

**POS-14: Markus Quante**: SHEBA – Selected Results and Lessons Learned from the Transdisciplinary Approach

**POS-15: Jane da Mosto**: We are here Venice

**POS-16: Michele Acciaro**: Energy efficiency determinants in the container shipping industry
Wallenberg Conference Center
Medicinaregatan 20A, 413 90, Gothenburg

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GETTING AROUND

The compact city centre, suitable for pedestrians and cyclists, and with a comprehensive public transport system makes it easy to get around.

Walking: Almost everything is found within walking distance. Thanks to the compact city centre there is no real need for transport.

Scandic Opalen: Engelbrektsgatan 73, 402 23 Gothenburg
Hyllan Chalmers Kårhus, Sven Hultins gata 4, 412 58 Gothenburg
Wallenberg Conference: A, Medicinaregatan 20, 413 90 Gothenburg

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