

Preliminary TAP and S&E 2023 Conference program

Please note that for this preliminary version of the program for some abstracts (posters) only the name of the presenting author is listed (marked with *). The final program will include the names of all co-authors.

Day 1: TAP sessions – Monday, 25 September		
13:00 – 13:45	Conference opening	
13:45 – 14:30	#1 Keynote speech: TBC	
Oral session	Non-road emissions (TAP.07) New emission control concepts, testing conditions and pollutants, non-exhaust emissions (TAP.01)	Vehicle emission modelling and measurements. Impact assessment of emission regulations (TAP.06)
14:30 – 17:00	Train type effect on nanoparticles on an underground metro platform in Stockholm M. Tu*, U. Olofsson	Updated vehicle emission inventory in China. Y. Wen*, Min Liu, X. Wu, S. Zhang, Y. Wu
	Toxicity of particle emissions from car and train brake materials A. T. Juárez-Facio*, M. Introna, L. Bard, M.H. Tu, S.S. Steimer, U. Olofsson, K. Elihn	Long-term trends of black carbon and particle number concentrations and vehicle emission factors in Stockholm P. Krecl*, C. Johansson, M. Norman, S. Silvergren and L. Burman
	Real-world NOx emissions of Stage IV and V machines J. Demuyneck*, R. Vermeulen, P. Paschinger, P. Mendoza Villafuerte, D. Bosteels	Assessing pollutant emissions on an urban area using different traffic simulation approaches: multi-agent modelling and microscopic modelling M. Tirico*, V. Lebescond, D. Lejri, P. Gastineau, A. Can
	PM10 emissions and rubber content from different tyre types in relation to rubber hardness and road surface type M. Gustafsson*, P. Tromp, N. Svensson	Secondary aerosol formation from real vehicle exhausts – Development of an equivalent total particle emission index module for air quality modelling applications P. Roldin*, M. P. Rissanen, L. Pichelstorfer, J. Pagels, A. Oudin, H. Timonen, T. Rönkkö, P. Aakko-Saksa
	Brake wear ultrafine particle emissions from a light duty vehicle under real driving conditions Q. Vroom*, N. Ligterink	Emission savings potential of ecodriving based on over 1500 hours of driving data from 5 countries. Findings from the uCARE project B. Cox*, B. Notter, M. Opetnik, L. D'Amore

	A Novel Simulation Approach for Non-Exhaust Particle Emissions L. Landl*, S. Hausberger	Impact of uCARE measures on air quality in selected cities E. Johansson*, R. van Gijlswijk, B. Schächli, B. Notter
17:30 – 20:00	Welcome reception	
Day 2: TAP sessions – Tuesday, 26 September		
Oral session	Vehicle greenhouse gas (GHG) emissions, energy consumption, vehicle, and fuel life cycle analysis (TAP.05)	Remote sensing of vehicle emissions (TAP.04)
9:00 – 10:40	From physical testing to on-board fuel consumption monitoring and telemetry: a pilot project for capturing the real-world fuel consumption of vehicles A. Tansini*, J. Suarez, N. Aguirre, A. Laverde, G. Fontaras	A Gas Schlieren Imaging Sensor System for Locating and Examining Automotive Exhaust Plumes for Remote Emission Sensing Applications H. Imtiaz*, P. Schaffer, M. Kupper and A. Bergmann
	CO₂ emissions performance comparison of Australian and European SUVs D. Komnos*, J.J. Gómez Vilchez, R. Smit, L. Ntziachristos, and G. Fontaras	Single-blind test on the effectiveness of the Gumbel distribution method in detecting high-emitters in remote sensing data Z. Yang*, J. Tate; C. Rushton; J. Borken-Kleefeld; M. Qiu; Å. Sjödin
	Temperature Effects on Energy Consumption from Battery Electric Vehicles S. Hausberger*, G. Silberholz, S. Lipp, M. Opetnik and H. Helms	Optimisation and Validation of Plume Chasing for Particle and NO_x High Emitter Identification C. Schmidt*, D. Pöhler, S. Schmitt, M. Knoll, T. Frateur, J. P. Lollinga, N. E. Ligterink, M. Vojtíšek, J. Borken-Kleefeld, Y. Bernard, N. J. Farren, D. C. Carslaw and U. Platt
	The gap between type-approval and real-world energy consumptions of truck fleets in China P. Zhao*, S. Zhang, Y. Wu	A method for deriving characteristic emission polygons for engine families based on large datasets from remote sensing measurements Å. Sjödin*, S. Hausberger, M. Jerksjö, Y. Cha
Oral session	Vehicle greenhouse gas (GHG) emissions, energy consumption, vehicle, and fuel life cycle analysis (TAP.05)	Remote sensing of vehicle emissions (TAP.04)

11:10 – 12:40	<p>Prediction of fuel consumption for truck planning based on VECTO simulations</p> <p>N. Kousias*, F. Kyriakidis, K. Agavanakis, R. Quittard, G. Mellios</p>	<p>Intercomparison of Remote Emission Sensing Methods and Validation with PEMS Measurements</p> <p>M. Knoll*, M. Penz, T. Rossi, H. Juchem, C. Schmidt, D. Pöhler, S. Casadei, Y. Bernard, A. Bergmann, A. Sjödin</p>
	<p>Experimental validation of battery electric truck simulation in VECTO</p> <p>S. Broekaert*, E. Bitsanis, G. Fontaras</p>	<p>Applications of multi-sensor roadside networks for fleet emission source apportionment and single-vehicle EF determination</p> <p>M. Chu*, P. Brimblecombe, D. Westerdahl and Z. Ning</p>
	<p>Emission Monitoring for used cars: Evaluation of On-Road Testing</p> <p>P. Dégeilh, J. Kermani, S. Rodriguez, A. Frobert*</p>	<p>The role of real-world emissions data in the assessment of low-emission zone policies</p> <p>K. Lee*, Y. Bernard, U. Tietge</p>
Oral session	<p>On-Board Monitoring and Diagnostics, emission tampering and deterioration (TAP.02)</p>	<p>In-service conformity and new concepts for enhanced emission testing in PTI (TAP.03)</p>
13:40 – 15:10	<p>Identification of Manipulated & Defective Truck NOx Emission Reduction Systems with Plume Chasing for Authority Inspections</p> <p>D. Pöhler*, C. Schmidt, S. Schmitt, J.P. Lollinga, T. Frateur, N. E. Ligterink, M. Vojtíšek, J. Borcken-Kleefeld, Y. Bernard Å. Sjödin</p>	<p>Solid particle number (SPN) measurements during the periodic technical inspection (PTI) of vehicles</p> <p>A. Melas*, R. Suarez-Bertoa, B. Giechaskiel</p>
	<p>Strong impact of ambient temperature on nitrogen oxides emissions from heavy-duty diesel trucks based on plume chasing tests</p> <p>H. Wang*, S. Zhang, X. Wu, Y. Wu</p>	<p>Extended evaluation of the emissions of top-selling Euro 6 cars depending on powertrain and exhaust after-treatment technologies</p> <p>M. Leblanc*, A. Albinet, S. Raux</p>
	<p>Real world particle number emission factors from plume chasing data</p> <p>T. Frateur*, N. Ligterink, J. P. Lollinga, D. Pöhler, C. Schmidt, M. Knoll, M. Vojtíšek</p>	<p>In-use NOx emission trends of diesel trucks in China informed by large-sized inspection data</p> <p>Y. Wang*, H. Cheng, S. Zhang, Y. Wu, Z. Ran</p>
15:30 – 16:00	TAP Poster session pitch	
16:00 – 17:30	<p>TAP poster session 1.A</p> <p>TAP.01-TAP.04</p>	<p>TAP poster session 1.B</p> <p>TAP.05-TAP.07</p>

<p>Measurement and Analysis of Brake and Tyre Particle Emissions for High-Load Driving Scenarios on a Test Bed</p> <p>Martin Kupper*, et al.</p>	<p>Predictive energy management for a plug-in hybrid electric truck</p> <p>N. Aletras*, et al.</p>
<p>The EV-olution of non-exhaust emissions</p> <p>D. Mehlig*, et al.</p>	<p>Real-world energy consumption performance of typical battery electric vehicles in China</p> <p>Y. Zhao*, et al.</p>
<p>Influence of vehicle weight on PM emissions from studded and studless winter tyres - laboratory and on-road results</p> <p>S. Kulovouri*, et al.</p>	<p>Real-world operation features and energy consumption of battery electric trucks in China</p> <p>Z. Ran*, et al.</p>
<p>The effect of a porous pavement on air quality in comparison to a dense pavement</p> <p>N. Svensson*, et al.</p>	<p>CO₂ emissions targets, revisiting the transition from 2020 NEDC to 2021 WLTP</p> <p>J. Suarez-Corujo*, et al.</p>
<p>First application of a protocol for physico-chemical characterization of the nanoparticulate.</p> <p>A. Colombo*, et al.</p>	<p>Multi-sectoral drivers of decarbonizing battery electric vehicles in China</p> <p>F. Wang*, et al.</p>
<p>Development of a mobile ALI exposure system for toxicity testing of emissions from different transportation modes</p> <p>K. Elihn*, et al.</p>	<p>Electric and conventional vehicles energy consumption under various traffic conditions</p> <p>S. Mamarikas*, et al.</p>
<p>Comparison of two Air Liquid Interface (ALI) systems: lung cells exposure to vehicle exhaust</p> <p>G. Tsakonas*, et al.</p>	<p>"Fuel consumption, regulated and unregulated exhaust emission tests on three Euro 6d bi-fuel LPG passenger cars, fed by an innovative LPG/DME 80/20 (V/V) blend</p> <p>T. Rossi*, S. Casadei, S. Lixi, M. Martini, D. Faedo</p>
<p>Design of a sampling system for brake particles on-road measurement – A computational preliminary study</p> <p>Athanasios Dimaratos*, et al.</p>	<p>Future SUV fleet and CO₂ emissions projections in Australia and the European Union</p> <p>J. Gómez Vilchez*, et al.</p>
<p>Toxicity of real-world road tunnel emissions in an ALI exposure model.</p> <p>M. Introna*, et al.</p>	<p>Vehicle fleet electrification: electric energy consumption assessment at the scale of an urban area.</p> <p>D. Lejri*, et al.</p>

	<p>I/SVOCs emissions characteristics of light-duty gasoline vehicles using GC×GC-MS</p> <p>Y. Cao*, et al.</p>	<p>A combination of 1 Hz speed data and license plate scans offer unprecedented insight into driver behaviour on Dutch roads</p> <p>J.M. de Ruiter*, et al.</p>
	<p>Non-Exhaust Emissions in Aotearoa New Zealand</p> <p>G. Coulson*, et al.</p>	<p>Active traffic management for improved air quality and reduced climate impact</p> <p>M. Norman*, et al.</p>
	<p>The emissions of intermediate-volatility and semi-volatile organic compounds from Chinese diesel vehicles under different engine conditions</p> <p>X. Zhang*, et al.</p>	<p>Particle number box-model calculations in a street canyon and comparison to measurements</p> <p>N. Toenges-Schuller*, et al.</p>
	<p>Characterization & quantification of traffic-derived non-exhaust particles (TWP/TRWP, brake & road wear) in airborne dust</p> <p>J. Rausch*, et al.</p>	<p>Temporal distribution of national emission data for dispersion calculations with chemical transport models</p> <p>N. Toenges-Schuller*, et al.</p>
	<p>Effects of geofencing on exhaust emissions and noise: A combined test track and traffic simulation study</p> <p>N. Svensson*, et al.</p>	<p>Quantification of temperature dependence of NO_x emissions from road traffic in Norway using air quality modelling and monitoring data</p> <p>E. Grötting Wærsted*, et al.</p>
	<p>Data protection in remote sensing through profiling high-emitting vehicles</p> <p>L. Unterschütz*, et al.</p>	<p>The impact of UK Clean Air Zones (CAZs) on the observed vehicle fleet</p> <p>I. Philips*, et al.</p>
	<p>Feasibility study for future on-board NO_x monitoring of passenger cars</p> <p>C. Matzer*, et al.</p>	<p>Lubrication oil as a potential source of traffic originated secondary particulate mass</p> <p>M. Priestley*, et al.</p>
	<p>Simultaneous in-cabin and on-road CO₂ concentrations on-board measurements</p> <p>A. Mehel*, et al.</p>	<p>Estimation of mobility and traffic emissions based on cell phone data</p> <p>F. Troncoso Lamaison*, et al.</p>
	<p>Assessment of Hot Idling Test Procedure for NO_x Measurement in Periodic Technical Inspection (PTI) of Vehicles</p> <p>Jacopo Franzetti*, et al.</p>	<p>Input requirements for modeling the microscale spatial distribution of emission hotspots based on real-world measured vehicle activity</p> <p>Christina Quaassdorff*, et al.</p>

	<p>A simplified in-Field Calibration method for Periodical Technical Inspections Particle Counters with atomized NaI</p> <p>H. Krasa*, et al.</p>	<p>NRMM Real Operation NOx Emission Measurements with Plume Chasing</p> <p>C. Schmidt*, et al.</p>
	<p>Evaluating the Role of Vehicle Technical Characteristics, Annual Mileage and Vehicle Age on DPF using Particle Counters</p> <p>M. Bunjevac*, et al.</p>	<p>Real-world emissions and deployment monitoring of construction machinery</p> <p>P. van Mensch*, et al.</p>
	<p>Evaluating the Effectiveness of Diesel Particulate Filters during Vehicle Periodic Technical Inspection in Republic of Croatia: A Comparative Study Using Particle Counters and Opacimeters during Technical Inspections</p> <p>M. Bunjevac*, et al.</p>	<p>Environmental and Ecological Impacts of the Standard Gauge Railway (SGR) in Kenya</p> <p>Klerkson Lugusa*, et al.</p>
	<p>Advanced Air quality sensors and Remote Sensing to investigate vehicular traffic emissions in Milan: CARES H2020 Project results</p> <p>S. Moroni*, et al.</p>	<p>A numerical study of particle dispersion in the wake of a static and rotating cylinder</p> <p>K. CHEKROUBA*, et al.</p>
	<p>Development and testing of a novelty Remote Sensing Device for the simultaneous measurement of vehicles' emissions circulating in multilane roads</p> <p>J. Buhigas Pérez*, et al.</p>	<p>Assessing the Impact of Car Cabin Filters mileage on In-Vehicle Air Quality: Results from Controlled Environment</p> <p>Nadir Hafs*, et al.</p>
	<p>Remote Sensing Measurements of Vehicle Emissions in Sarajevo</p> <p>Y. Cha*, Å. Sjödin</p>	
	<p>Emissions from in-use vehicles in Dublin using on-road remote sensing</p> <p>S. Mahesh*, et al.</p>	
	<p>Remote Sensing Emission Measurements on a German Motorway – Insights and initial Results</p> <p>C. Piasecki*, et al.</p>	

	<p>Simulations of a NIR TDLAS Sensor for Stand-Off Measurement of Carbon Dioxide for Remote Emission Sensing</p> <p>P. Schaffer*, et al.</p>	
	<p>A modern, flexible cloud-based database and computing service for storing and analysing vehicle emission measurements</p> <p>C. Rushton*, et al.</p>	
	<p>Extending point sampling roadside particle measurements to smaller vehicles and low-cost instruments</p> <p>M. Vojtisek-Lom*, et al.</p>	
17:40 – 18:10	Concluding remarks TAP (Plenary)	
Day 3: Joint TAP and S&E sessions – Wednesday, 27 September		
8:30 – 8:40	Conference introduction	
8:40 - 9:10	#2 Keynote speech: TBC	
Oral session	Compliance monitoring: technological & legal frameworks; experimental studies; theoretical impact studies (Joint session.10)	Atmospheric processes and air quality impact studies: modelling impacts of transport on air pollution, climate, health & ecosystems (Joint session.09)
9:15-10:30	<p>Shipping emissions monitoring with on-board and remote techniques and impacts on air quality: The SCIPPER project summary and results</p> <p>L. Ntziachristos*, et al.</p>	<p>Specification of Zero-Impact Vehicle Emissions & Demonstration of Zero Impact</p> <p>U. Uhrner*, N. Toenges-Schuller, R. Reifeltshammer, Werner Stadlhofer, S. Hausberger</p>
	<p>Comparison of particle emission factors from shipping using different instruments</p> <p>D. van Dinther*, A. Weigelt, Jörg Beecken, J. Mellqvist, V. Conde Jacobo, M. Blom, and J Duyzer</p>	<p>Impacts of shipping emissions on air pollution in 2040: effects of NECA and non-compliance</p> <p>S. Jutterström*, J. Moldanová, E. Majamäki, J.-P. Jalkanen, J. Kuenen, and V. Matthias</p>
	<p>Performance assessment of state-of-the-art and novel methods for remote compliance monitoring of sulphur emissions from shipping</p>	<p>Direct evidence of the substantial effect of SECA in the Baltic Sea</p> <p>A. Maragkidou*, T. Grönholm, L. Rautiainen, T. Mäkelä, L. Laakso and J. Kukkonen</p>

	J. Beecken*, A. Weigelt, S. Griesel, J. Mellqvist, A.V. Conde Jacobo, D. van Dinther, J. Duyzer, B. Knudsen, J. Knudsen, L. Ntziachristos	
	Remote monitoring of NOx from shipping- validation and long-term results J. Mellqvist*, J. Beecken, A. Weigelt, S. Griesel, A.V. Conde Jacobo, D. van Dinther, J. Duyzer, B. Knudsen, J. Knudsen, M. Irjala, L. Ntziachristos	The impact of shipping emissions to urban air quality in Europe - A port/city analysis A. Megaritis*, J.S. Hullegie, J. Tokaya, P. Coenen, and G. Valastro
Oral session	Emissions of air pollutants, GHG, water contaminants, including ambient and underwater noise and vessel-induced mixing (Joint session.08)	Atmospheric processes and air quality impact studies: modelling impacts of transport on air pollution, climate, health & ecosystems (Joint session.09)
11:00 - 12:30	Remote detection of ship exhaust plumes from different marine fuels on board a research vessel in the Baltic Sea region using single-particle mass spectrometry J. Schade*, J. Passig, E. Iva Rosewig, Helena Osterholz, R. Irsig, J. Hovorka, D. Schulz-Bull, R. Zimmermann, T. W. Adam	Future impact of shipping emissions on air quality in Europe under climate change scenarios A. Monteiro*, M. Russo, D. Carvalho, J.-K. Jalkanen
	Underwater noise emissions from ships during 2014-2020 J.-P. Jalkanen*, L. Johansson, M. H. Andersson, E. Majamäki and P. Sigra	Potential impact of shipping on PM2.5 species in the Mediterranean region - a multi-model evaluation L. Fink*, M. Karl, V. Matthias, S. Oppo, R. Kranenburg, J. Kuenen, J. Moldanova, S. Jutterström, J.-P. Jalkanen, E. Majamäki
	Size resolved particle emission behaviour for different types of vessels A. Weigelt*, J. Beecken, D. van Dinther, S. Griesel, J. Mellqvist and L. Ntziachristos	A numerical CFD model to quantify traffic-related pollutant concentrations in urban scale. G. Ioannidis*, L. Ntziachristos, T. Riedel Till, C. Li, P. Tremper
	Ammonia as a Marine Fuel Towards Decarbonization: Combustion and Emission Characteristics G. Voniati, A. Dimaratos*, S. Kyklis, G. Koltsakis, L. Ntziachristos	Health benefits if air pollution goals achieved along highways L. Broman*, B. Lövenheim and C. Johansson
	Characterisation of emissions from marine vessel with E-methanol fuel and NOx emission control	On the determination of ship exhaust aerosol volatility in the SCIPPER project

	J. Moldanova*, H. Timonen, P. Simonen, G. M. Lanzafame, R. Verbeek, H. Salberg, L. Barreira, K. Teinilä, S. Saarikoski, L. Markkula, J. Kalliokoski, B. D'Anna, B. Temime-Roussel, H. Hellen, L. Ntziachristos	M. Dal Maso*, P. Simonen, O. Kangasniemi, J. Kalliokoski., A. Wagner., L. Markkula, H. Timonen, L. Barreira, J. Moldanova, B. D'Anna, B. Temime-Roussel, G. M. Lanzafame, K. Teinilä, S. Saarikoski, H. Salberg, J.-P. Jalkanen, E. Majamäki, L. Ntziachristos, J. Keskinen
Oral session	Emissions of air pollutants, GHG, water contaminants, including ambient and underwater noise and vessel-induced mixing (Joint session.08)	Reduction measures for GHG emissions - alternative fuels, electrification, energy use optimization; inter-disciplinary and cross-sector studies (Joint session.11) Scenarios and policy options for sustainable transport (Joint session.12)
13:30 – 15:00	Discharges from exhaust gas cleaning systems in the OSPAR marine area T. Grönholm*, J.-P. Jalkanen, J. Kukkonen, I.-M. Hassellöv	Potential impact on emissions of an introduction of hydrogen & fuel cell-based propulsion in Nordic shipping R. Parsmo*, H. Lundström, J. Hansson, E. Fridell, K. Jivén
	Characterisation of fresh and aged ship emissions in the Port of Marsei Å. M. Hallquist*, G. M. Lanzafame, P. Simonen, M. Dal Maso, B. Temime-Roussel, H. Salberg, J. Kalliokoski, J. Mellqvist, V. Conde, B. D'Anna, J. Keskinen, L. Ntziachristos	Environmental and economic assessment of green and blue fuels for shipping F. Malik Kanchiralla*, E. Malmgren, M. Grahm, S. Brynolf
	Distribution of PAHs and metals between exhaust and scrubber water discharge from a large 2-stroke slow speed marine engine equipped with open loop scrubber A. Lunde Hermansson*, J. Moldanová, B. Strandberg, E. García-Gómez, M. Gros, M. Petrović, S. Rodríguez-Mozaz, I.-M. Hassellöv, E. Ytreberg	Trade-linked shipping CO₂ emissions H. Liu*, X. Wang
	Effects of sulfur scrubbers on particulate emissions from a marine diesel engine T. Streibel*, S. Jeong, J. Bendl, M. Saraji-Bozorgzad, M. Sklorz, C. Gehm, L. Anders, J. Passig, J. Schade, U. Etzien, T. Adam, B. Buchholz, Detlef E. Schulz-Bull, R. Zimmermann	Projections of shipping emissions in Europe in 2040 and 2050 E. Majamäki*, J.-P. Jalkanen, V. Matthias, J. Moldanova, L. Johansson

	<p>Methane slip from LNG engines - review and on-board study</p> <p>Kuittinen, N*, Heikkilä, M., Vesala, H., Karppanen, M., Jalkanen, J.-P., Lehtoranta, K.</p>	<p>Climate friendly and pollution-free? Scenarios for air pollution from shipping in Europe in 2050</p> <p>V. Matthias*, L. Fink, A. Grigoriadis, J. Hahn, J.-P. Jalkanen, J. Kuenen, E. Majamäki, L. Ntziachristos, R. Petrik, D. Schwarzkopf</p>
15:05 – 15:40	Joint TAP and S&E Poster session pitch	
15:40 – 17:30	<p>Joint TAP and SE Poster session</p> <p>Joint.08 + Joint.09</p>	<p>Joint TAP and SE Poster session</p> <p>Joint.10-Joint.12, S&E.13-S&E.14</p>
	<p>Particulate and gaseous emissions from a large 2-stroke slow speed marine engine equipped with open-loop scrubber under real sailing conditions</p> <p>A. Grigoriadis*, et al.</p>	<p>Application of a 24-hour ship plume forecasting system</p> <p>R. Badeke*, et al.</p>
	<p>AIS data mining to identify tank cleaning operations at sea</p> <p>W. Mao*, et al.</p>	<p>DOAS applied to shipping emission monitoring: compliance assessment and comparison to satellite measurements</p> <p>M. Prignon*, et al.</p>
	<p>FUGitive Methane Emissions from Ships (FUMES): Characterizing methane emissions from LNG-fueled ships using drones, helicopters, and on-board measurements</p> <p>J. Beecken*, et al.</p>	<p>SEICOR - Ship Emission Inspection with Calibration-free Optical Remote sensing</p> <p>M. Rieker*, et al.</p>
	<p>Discharges from ships to the sea in European sea regions</p> <p>J.-P. Jalkanen*, et al.</p>	<p>Experiences with sensor based continuous emission monitoring for demonstration of maritime emissions compliance</p> <p>R. Verbeek*, et al.</p>
	<p>A low-cost Optoacoustic Sensor for Black Carbon monitoring of ships</p> <p>N. Kousias*, et al.</p>	<p>Remote monitoring of sulphur emissions from shipping with a novel high sensitivity laser system</p> <p>V. Conde*, et al.</p>
	<p>Measurement of NOx and ultrafine particles from inland shipping in Germany</p> <p>P. Eger*, et al.</p>	<p>A single instrument for simultaneous monitoring of greenhouse gases and air pollutants</p> <p>M. Hundt*, et al.</p>
	<p>A new set of Emission Factors for ships</p> <p>A. Grigoriadis*, et al.</p>	<p>Monetary return on scrubber installations at the expense of environmental damage</p> <p>A. Hermansson*, et al.</p>

<p>VOC emissions from ships</p> <p>K. Salo*, et al.</p>	<p>The actor perspective on reaching a low emitting shipping sector</p> <p>E. Malmgren*, et al.</p>
<p>Automatic Classification of Aerosol Particles using Single-Particle Mass Spectrometry and Machine Learning</p> <p>G. Wang*, et al.</p>	<p>Policy scenarios for analysing use of scrubbers in shipping</p> <p>E. Fridell*, et al.</p>
<p>Gentlemen, do not start your engines: The association between vessel departures and air pollution in Helsinki port area 2016-2021</p> <p>M. Heikkilä*, et al.</p>	<p>Environmental pricing strategies at European ports: A competitive factor to attract more traffic?</p> <p>M. Gonzalez-Aregall*, et al.</p>
<p>Maritime Greenhouse Gas Emission Reduction Scenarios – Extension of DIONE model</p> <p>J. Krause*, et al.</p>	<p>Solid Oxide Fuel Cells for Reduced Health and Climate Impact of Ship Emissions</p> <p>J. Pagels*, et al.</p>
<p>The emissions of intermediate-volatility and semi-volatile organic compounds from Chinese diesel vehicles under different engine conditions</p> <p>X. Zhang*, et al.</p>	<p>Legal barriers to transporting CO₂ streams by ships</p> <p>G. Argüello*, et al.</p>
<p>High-resolution air quality mapping via massive mobile monitoring and land use random forest models</p> <p>T. Zheng*, et al.</p>	<p>Is post-exposure feeding inhibition of <i>Artemia</i> sp. and <i>Mytilus galloprovincialis</i> impaired by exposure to scrubber-waters?</p> <p>N. Abrantes*, et al.</p>
<p>Air quality assessment at the street level: sensitivity analysis of a road traffic-emissions-CTM model chain for the Paris region</p> <p>M. Lannes*, et al.</p>	<p>Scrubber water impairs fertilization and development in the green sea urchin (<i>Strongylocentrotus droebachiensis</i>) at very low concentrations</p> <p>C. Yu Chen*, et al.</p>
<p>The assessment of a Zero Emission Zone air quality and human health impacts in the metropolitan city of Milan</p> <p>Andrea Piccoli*, et al.</p>	<p>Deposition quantification of gaseous emissions at the air-water interface during a single vessel travel</p> <p>N. Rapkos*, et al.</p>
<p>Improving 3-day deterministic air pollution forecasts using machine learning algorithms</p> <p>Magnuz Engardt*, et al.</p>	<p>Variation in responses of microalgae, <i>Nitzschia</i> sp. exposed to grey water from ships.</p> <p>Mekhala Rathnamali*, et al.</p>

<p>Effects of noise barriers on population exposure to and health impacts of air pollutants downwind of highways</p> <p>D. Schlesinger*, et al.</p>	<p>Holistic environmental impact assessment from shipping: A decision support tool for stakeholder engagement</p> <p>W. Winiwarter*, et al.</p>
<p>CFD dispersion modelling for the reproduction of real shipping emission conditions in a port area</p> <p>C. Boikos*, et al.</p>	<p>Cumulative effects of commercial anchoring on the Pacific Coast of Canada: Ecological and Socio-Economic Effects</p> <p>L. Hannah*, et al.</p>
<p>The impact of maritime activities on air quality in three European ports</p> <p>M. Ramacher*, et al.</p>	<p>Assessing the impact of environmental policy instruments for ships in Europe with a modelling tool</p> <p>R. Parsmo*, et al.</p>
<p>Transition to cleaner and carbon-free marine fuels and their potential impacts on air quality in the North and Baltic Sea in the future</p> <p>D. Schwarzkopf*, et al.</p>	<p>LNG feeder vessel environmental pressures, partially decoupled from transport demand</p> <p>I.-M. Hassellöv*, et al.</p>
<p>Particle number size distribution and source apportionment at different transport hotspots across Europe</p> <p>S. Ridolfo*, et al.</p>	<p>The Poseidon Principles: Designing and implementing a regulatory framework to create ecosystem sustainability</p> <p>I.-M. Hassellöv*, et al.</p>
<p>The impact of data splitting in air quality modelling on the possibilities of interpretation of the results</p> <p>K. Joanna*, et al.</p>	<p>ShipTRASE, Global shipping: Linking policy and economics to biogeochemical cycling and air-sea interaction</p> <p>A. Rutgersson*, et al.</p>
<p>Particle number box-model calculations in a street canyon and comparison to measurements</p> <p>N. Toenges-Schuller*, et al.</p>	
<p>Temporal distribution of national emission data for dispersion calculations with chemical transport models</p> <p>N. Toenges-Schuller*, et al.</p>	
<p>Active traffic management for improved air quality and reduced climate impact</p> <p>M. Norman*, et al.</p>	

	<p>A numerical study of particle dispersion in the wake of a static and rotating cylinder</p> <p>K. Chekrouba*, et al.</p>	
	<p>Transport emission footprint in the Slovak economy</p> <p>J. Horváth*, et al.</p>	
17:30 – 18:00	Concluding remarks Joint TAP and SE (Plenary)	
18:00 – 22:00	Joint Conference Dinner	
Day 4: S&E sessions – Thursday, 28 September		
9:00 – 9:15	Conference introduction	
9:15 – 9:45	#3 Keynote speech: TBC	
Oral session	<p>Marine processes - fate of pollution from shipping in the marine environment: impact studies on ecotoxicology, eutrophication and acidification, energy pollution including underwater noise & induced mixing; experimental work, modelling studies of dispersion, transport, and chemical and biological processes in marine waters (S&E.13)</p>	
9:50 – 15:30	<p>A multi species and multi system evaluation of the ecotoxicological effects of scrubber water – a synopsis of results from the EMERGE project</p> <p>M. Granberg*, et al.</p>	
	<p>Ecotoxicological effects of exhaust gas cleaning system (EGCS) discharge water on marine copepods</p> <p>M. Picone*, E. Giubilato, K. Magnusson, M. Granberg, A. Volpi Ghirardini, A. Marcomini</p>	
	<p>Sampling strategies and characterization of greywater from ships</p> <p>J.T. Mujingni*, G.B.M Rathnamali, I-M Hassellöv, E. Ytreberg and K. Salo</p>	
Oral session	<p>Marine processes - fate of pollution from shipping in the marine environment: impact studies on ecotoxicology, eutrophication and acidification, energy pollution including underwater noise & induced mixing; experimental work, modelling studies of dispersion, transport, and chemical and biological processes in marine waters (S&E.13)</p>	
11:00 – 12:30	<p>Turbulent ship wakes: extent, intensity, and interaction with stratification</p> <p>A. Nylund*, I.-M. Hassellöv, A. Tengberg, R. Bensow, G. Broström, M. Hassellöv, and L. Arneborg</p>	
	<p>Response in the marine diatom <i>Nitzschia</i> sp., following exposure to bilge water from different ships</p> <p>J. Egardt*, I.-M. Hassellöv, I. Dahllöf</p>	
	<p>Environmental fate modelling of organic pollutants from land-based and shipping emissions in the Northern Adriatic Sea coastal areas</p> <p>Calgaro L.*, Giubilato E., Aghito M., Jalkanen J.P., Ferrarin C., Semenzin E., Marcomini A.</p>	

	<p>The possibilities and effects of ship speed reduction on underwater noise – a case study</p> <p>R.E. Bensow*, D. Glebe, M. Andersson, L.-G. Malmberg, E. Lalander, K. Larsson, M. Svedendahl, I.-M. Hassellöv, E.-L. Sundblad</p>
	<p>Influence of scrubber effluent on biogenic trace gas production</p> <p>D. Booge*, A. J. Paul, J.F. Tavares, S.C. Yang, K. Salo, K.R.M. Mackey, S.G. John, C. Marandino</p>
Oral session	Holistic assessment of shipping impacts on the environment, shipping in marine spatial planning (S&E.14)
13:30 – 15:00	<p>Impact assessment of shipping activities: Applying the critical load concept to both the atmosphere and marine environment</p> <p>S. Guéret*, W. Winiwarter, A. Lunde Hermansson, J. Borken-Kleefeld, I.-M. Hassellöv and E. Ytreberg</p>
	<p>Managing Marine Resources Sustainably: a transdisciplinary approach to the causes, consequences, and responses to environmental problems of shipping and navigation</p> <p>M. Elliott*, I.-M. Hassellöv</p>
	<p>Impacts of expanding commercial anchoring on the Pacific Coast of Canada</p> <p>F.T. Francis*, K. Douglas, L.C. Hannah, S. Agbayani, K. Berry, S. Dudas, R. Enkin, D. Havens, T. Norgard, C. Robb, E. Rubidge, S. Verrin, and C. Murray</p>
	<p>Reducing ports' contribution to climate change</p> <p>F. Sakellariadou*, I.-M. Hassellöv, C. F. Wooldridge and D. Kitsiou</p>
	<p>Financial incentives for ship underwater noise mitigation</p> <p>A. T. Johansson*, S. Sköld, Carl Andersson, Cecilia Andersson, and H. Winnes</p>
15:30 – 16:30	Concluding remarks, discussion S&E (Plenary)

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