

WELCOME!

Content

- I Welcome Note
- II Conference hall map
- III Conference programme & information for presenters
- IV Poster sessions
- V Overview map of conference hall and event locations
- VI Event locations with direction maps
- VII Restaurant guide
- VIII ATM services in Sapporo
- IX Sponsors and contact

Note our events!

Ice breaker, 21 April, Beer Keller Sapporo, 6.00-9.00 pm **Banquet,** 24 April, Sapporo Grand Hotel, 7.30-10.30 pm







Welcome to Sapporo for the 2019 SOLAS Open Science Conference!

We have an exciting and interesting program lined up for our 7th installment of the SOLAS open science conferences, set in this cosmopolitan city at the wild end of Japan. During the coming week, you have the opportunity to explore the full range of SOLAS science, from the core themes of the science plan during plenary lectures, to emerging issues in discussion sessions, to the future wave during the Early Career Scientists' Day.

SOLAS is a bottom-up organization, in which the scientific community sets the agenda, and the Open Science Conferences play a key role in that process. The first SOLAS Open Science Conference, held in Damp, Germany in 2000, generated the ideas that formed the first SOLAS Science Plan, and that tradition continues, as we hope this week will also identify new frontiers for our community to explore.

Hokkaido provides a perfect backdrop to our discussions this week, located at a nexus of airsea exchange research of both global and local significance. The northern coast of Hokkaido is the lowest latitude at which sea ice forms. It also borders the Sea of Okhotsk, the primary ventilation site for the North Pacific Ocean. To the west, lies a temperate marginal sea that has been a site of extensive SOLAS research into how the human system interacts with air-sea exchange processes. And of course, to the east, the North Pacific Ocean, itself, where high nitrate-low chlorophyll waters meet atmospheric dust and nutrient deposition, with periodic perturbation by typhoons.

We want to thank all the sponsors and funders of this conference, as well as the sponsors of the International SOLAS program (SCOR, Future Earth, iCACGP, and WCRP) for all their support over the years. We also thank the SOLAS International Project Office and the Local Organizing Committee for their hard work and dedication in assuring that we have a fun and comfortable meeting this week. Finally, we thank you, the SOLAS community, for making SOLAS the productive, exciting, and important organization that it is.

Enjoy!

Lisa A. Miller Chair, SOLAS Scientific Steering Committee

Lesa Mill

Jun Nishioka Chair, SOLAS 2019 Local Organizing Committee

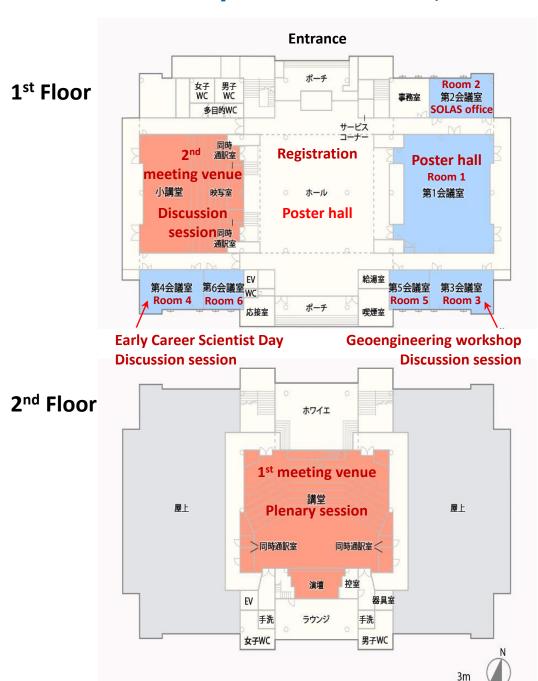
Jun nishioda







II. Conference hall map - Hokkaido University



Registration desk

If you require any assistance, please visit the registration desk.

The registration desk will be open throughout the conference from 9:00 am on Sunday and from 8:00 am on Monday to Thursday.

Please regularly check the information board next to the desk, which will inform about conference details, programme changes, and other announcements.

III. Conference programme & information for presenters

		collegence pandaer	T2:30		Manorial representatives diffiel (maration only)	DC: 6T	reception	
			10.50	Science & Society	10	10.00	Welcome	18:00
				17:30- Theme 1: Greenhouse gases and the oceans	17:30- Theme 4: Interconnections between aerosols,	17:30-	workshop	
				Geoengineering	Integrated topics		Geoengineering	
		18:00 energy	18:00	18:00 atmospheric chemistry	18:00 biogeochemistry	18:00	Scientists Day	
			ŝ	Poster sessions	Poster sessions	ŝ	Early Career	15:30
		O Coffee break (during poster session)	16:00	16:00 Coffee break (during poster session)		16:00	Coffee break	15:30
		P. Suntharalingam, G. Zhang, A. Koertzinger: Oceanic greenhouse gases: The present situation and future initiatives		C. Chen, E. Achterberg: The High Resolution Measurement for the Ocean-Atmosphere Interfacial Layers	M. Frey, P. Zieger, D. Nomura, J. Thomas, N. Steiner: The coupling of ocean, sea ice and atmospheric chemistry & biogeochemistry - a cross-disciplinary research challenge		Geoengineering workshop	
		A. Ito, W. Landing, D. Hamilton: Atmospheric deposition of iron, ocean biogeochemistry and marine emission of biological aerosols		P. Hwang, T. Toyota: Enhanced air-sea interaction in the emerging Marginal Ice Zone	S. Royer, D. Deheyn: Impacts of ocean plastic and microfibers on air quality and climate		scientists Day	
		M. Uematsu, A. Zivian, K. Slavik: WHAT IS Ocean KAN?	14:30	14:30 Discussion sessions E. van Doorn, C. Marandino: SOLAS Science & Society: achievements, present status & future possibilities	Discussion sessions C. Marandino, A. Koertzinger, T. Bell, J. Jeong: Can long term observatories be used to study the processes controlling air-sea exchange?	14:30	Early Career	14:30
12:30 Conference closing	12:3		12:30			12:30	Lunch	12:30
12:10 C. White: Impact of atmospheric nitrogen deposition to nitrogen limited marine surface waters in the temperate and subtropical North Atlantic Ocean	12:1	12:10 J. Maass: Simulating halocarbon concentration in ocean and atmosphere from industrial water treatment	12:10	12:30 R. Stanley, Relating air-sea gas fluxes to bubble distributions at high wind speeds: insights from the sustain wind-wave tank	12:10] P. Zieger. Revising the hygroscopicity of inorganic sea salt particles	12:10		
11:50 R. Mukherjee: Limitation of iron on N2 fixation in the Arabian Sea		11.50 K. Hamasaki: Microbial community dynamics in sea surface microlayer and sea spray aerosols observed in coastal inlets of Japan	11:50	11:50 P. Markuszewski: Sea spray fluxes: interconnections between ambient noise of bubbles and wave age	11.50 P. Rodríguez-Ros: Ecological modeling of marine biogenic isoprene emissions in the Southern Ocean	11:50	Geoengineering workshop	
11:30 W. Landing: Atmospheric Deposition to the Oceans Controls Biological Productivity	11:3	11:30 S. Smith: Modelling of ammonia/um across the air- sea interface in the Atlantic sector of the Southern	11:30	11:30 K. Krall: Air-sea gas transfer at hurricane wind speeds	11:30 A. Baccarini: Is new particle formation an aerosol source over the Southern Ocean?	11:30		
trace metals affects marine phytoplankton and their feedback to aerosols	11:0	Chemistry: Past, Present and Future	11.00	oceans	clouds in the summertime Canadian Arctic	11:00	Early Career Scientists Day	
Introduction by session chairs: L. Gallardo and P. Suntharalingam		atmospheric cremistry Introduction by session chairs: J. Ovadnevalte and Y. Miyazaki		energy Introduction by session chairs: P. Minnett and A. Rutgersson	Introduction by session chairs: M. Levasseur and Y. Iwamoto			
10:50 Theme 3: Atmospheric deposition and ocean	10:5	Theme 5:	10:50	10:50 Theme 2: Air-sea interface and fluxes of mass and	Theme 4: Ir	10:50		10:50
10:20 Coffee break	10:2	O Coffee break	10:20	10:20 Coffee break	Coffee break	10:20	Coffee break	10:20
1000 M. Frey: Sea salt aerosol from blowing snow above sea ice - a new particle source		9950 L. Keppler: Regional Wind Variability Modulates the Southern Ocean Carbon Sink 10:10 Group picture	09:50	1000 S. Sarker: Taking the science to community: An approach of multi-stakeholders integration for sustainable Blue Economy development in Bangladesh	10:00 J. Kim/K. Lee: Biological production reduces the net impacts of coastal acidification in the northwestern Pacific Ocean	10:00		
09:40 P. Wongpan: Using under-ice spectra to determine land-fast ice algal biomass in Lake Saroma, Japan	09:4	O Y. Eddebbar: Volcanic Modulation of Ocean Ventilation: Implications for Air-sea Carbon and Oxygen Exchange	09:30	09:30 K. Mengerik: Marine Spatial Planning as a Tool to Advance Science-Based Decision-Making	09:40 E. Saltzman: Air/sea transfer of highly soluble gases over coastal waters	09:40		
09:20 L. Gutierrez-Loza: Air-sea CH4 fluxes from eddy covariance measurements in the Baltic Sea	09:2	09:10 O. Bui: Dissolved methane distribution and its controlling factors in the Arctic Ocean in 2016 summer	09:10	09:10 S. Tegtmeier: Impact of large-scale macroalgae production on the ozone layer	09:20 M. Dai: Air-Sea CO2 fluxes, diapycnal nutrient fluxes and export productivity in oligotrophic ocean	09:20	Geoengineering workshop	
09:00 S. Landwehr: Investigation of sea spray source functions with aerosol size spectra measurements from the Antarctic Circumnavigation Experiment	09:0	08:40 S. Lauvset: The Carbon Cycle: The role of oceans and humans	08:40	08:40 A. Lenton: Geoengineering, the Ocean and SOLAS	08:50 M. Cornejo: The dynamic of the nitrous oxide in the Humboldt Current System	08:50		
Introduction by session chairs: K. Altieri and S. Kameyama		Introduction by session chairs: A. Koertzinger and G. Zhang		Introduction by sessions chairs: P. Boyd and E. van Doorn	Integrated topics I Session chairs: T. M. Latif and A. Mahajan		Scientists Day	09:00
08:50 Integrated topics II	08:5	Theme 1: Greenhouse gases and the oceans	08:30	08:30 Geoengineering / Science and Society	Conference opening Welcome & SOLAS introduction	08:30	Early Career	
Thursday, 25 April	Tim	Wednesday, 24 April	Time	Tuesday, 23 April	e Monday, 22 April	Time	Sunday, 21 April	Time

Information for presenters

- Poster presenters: Come to the registration desk as early as possible, pick up your poster panel number, and hang your poster. We kindly ask you to remove your poster by the end of the conference.
- Oral presenters: Come to the 'Speaker Ready Area' at the registration desk to upload and check your presentation.



IV. Poster sessions

Note that all posters are up all week. The dates and times below are when the presenters should be at their posters.

Monday, 22 April 2019 16:30 - 18:00

Atmospheric deposition and ocean biogeochemistry Integrated topics

- 301 *Gao*: Changes in phytoplankton community due to dust addition in eutrophication, LNLC and HNLC seawaters in the Northwest Pacific
- 302 Gong: Spatial variation of subsurface chlorophyll maximum in relation to temperature in northern South China Sea
- 303 Guo: Modelling the effects of atmospheric nitrogen deposition on primary production in the Yellow Sea and East China Sea
- 304 *Guo*: Atmospheric deposition and air? Sea gas exchange of polycyclic aromatic hydrocarbons over the Yangtze River Estuary, East China Sea
- 305 *Hamilton*: Anthropogenic impacts on iron biogeochemical cycles
- 306 Ito: Atmospheric deposition of iron from mineral dust and combustion aerosols to the ocean
- 307 Kurisu: Estimation of contribution of anthropogenic iron in marine aerosols by iron isotope ratios
- 308 *Marsay*: Concentrations, provenance, and fluxes of aerosol trace metals along the US GEOTRACES Pacific Meridional Transect
- 309 *Matoba*: Temporal variation in iron deposition onto the Northern North Pacific reconstructed from an ice core drilled in Alaska
- 310 Matsui: Anthropogenic combustion iron as a complex climate forcer
- 311 Nagashima: Provenance study of suspended detrital grains in the subarctic North Pacific using cathodoluminescence spectra of single quartz grains
- 312 Nakagawa: The triple oxygen isotopes of nitrate as tracer of atmospheric nitrate deposition in coastal seawater
- Noguchi: Influence of atmospheric nutrient deposition and phytoplankton species composition in the western north Pacific subtropical area in winter
- 314 *Obata*: Speciation of copper in the East China Sea:
- 315 Olgun: Iron (Fe) solubility of volcanic ash in seawater: Effect of grain size distribution of pristine volcanic ash
- 316 Perron: Aerosol iron transport and deposition to the ocean around Australia
- 317 *Qi*: Distribution of dry deposition velocities and fluxes of atmospheric particulate nitrogen and phosphorus over the China marginal seas and northwest Pacific
- 318 Sakata: Organic carbon in sea spray aerosol: The role in iron and claw hypotheses
- 319 *Taketani*: Seasonal response of north western Pacific marine ecosystems to deposition of atmospheric inorganic nitrogen compounds from East Asia
- 320 Tsunogai: The O-17 excess of nitrate in the Japan sea
- 321 Wang: The δ^{15} N and δ^{18} O values of nitrate and ammonium in aerosols over the East China Sea-implications on offshore atmospheric processing
- 322 Yamamoto: Impact of glaciogenic dust on glacial CO₂ decrease and deoxygenation
- 323 Zhang: Fertilization of the Northwest Pacific Ocean by Chinese haze particles
- 601 Evans: Accumulation processes of trace metals into Arctic sea ice: Distribution of Fe, Mn and Cd associated with ice structure
- 602 Hepach: The CoastSens project providing a unique tool for coastal environmental monitoring in the Baltic Sea
- 603 Maione: Contribution of shipping to BC emissions: a European study
- 604 Martinez Lopez: Eutrophication and climate forcing: effects in nitrogen pathways in lagoons of the gulf of california
- 605 Suzuki: Seasonal variation of phytoplankton assemblages in surface waters of the North Pacific



Monday, 22 April 2019 17:30 - 19:00

Interconnections between aerosols, clouds and ecosystems

- 401 *Abe*: Effect of two different DMS emission schemes on aerosol processes on the Earth System Model, MIROC-ES2I
- 402 *Aiki*: A marine-field optical particle counter for sea-spray measurements: Understanding the relationship between surface wave breaking and aerosol generation
- 403 *Ding*: Concentration distribution and sources of organic carbon in atmospheric particulates over the Yellow and Bohai Seas and in the coastal region
- 404 *Hara*: Atmospheric sea-salt halogen chemistry in polar regions
- 405 Iwamoto: CCN activities of marine aerosol over the north Pacific and its marginal seas during summer
- 406 Kawana: Measurements of fluorescent aerosol particles over the North Pacific and the Indian Ocean
- 407 Kim: Environmental magnetic assessment of particulate pollution by biomass burning in Korea
- 408 Law: Surface ocean aerosol production (SOAP) in the south-west PACIFIC: an update
- 409 *Lehahn*: The stimulating effect of horizontal dispersion on phytoplankton blooms in oligotrophic environments
- 410 *Mansour*: Marine biological activity influence on aerosol and cloud properties, observed through in situ and remote sensing measurements
- 411 *Miyazaki*: Origin of water-soluble organic nitrogen in marine atmospheric aerosols in the subtropical North Pacific
- 412 *Perkins*: Ice nucleation by surfactant films
- 413 Saint-Macary: Will ocean acidification and warming alter DMS emissions from coastal waters?
- 414 Selleqri: Is marine biology influencing seaspray number concentrations and CCN properties?
- 415 Steiner: Model simulations of present and future DMS emissions in the Arctic
- 416 Takahashi: Increase of soluble fraction of Fe in aerosol of volcanic origin during long-range transport
- 417 Wang: Distribution characteristics of culturable microorganism in Qingdao area
- 418 Yim: Atmospheric concentrations, total deposition and air? Water exchange of polycyclic aromatic hydrocarbons (PAHs) in Anmyeon Island, eastern part of the Yellow Sea
- 419 Zhu: Sources of black carbon in the Arctic Ocean simulated by Flexpart transport model

Tuesday, 23 April 2019

16:30 - 18:00

Ocean biogeochemical control on atmospheric chemistry Geoengineering

- 501 Altieri: Biogeochemical controls on marine aerosols and their precursors in the pristine atmosphere of the Southern Ocean
- 502 *Bell*: Controls on dimethylsulfide variability in the north Atlantic during different seasons and states of the phytoplankton bloom



Tuesday, 23 April 2019 16:30 - 18:00 (cont.)

503	Booge: Seasonal	changes of	coactal	curface	ocean	iconrono	concentrations
5 03	Booge: Seasonal	changes or	COastai	Surrace	ocean	isoprene	concentrations

- 504 Conte: Modeling the oceanic cycle of isoprene at the global scale
- 505 Deschaseaux: Dimethylsulfide (DMS) fluxes from permeable coral reef carbonate sediments
- 506 Du: Surface reactions of marine aerosols
- 507 Fujii: First long-term continuous monitoring and modeling of ocean acidification properties in the subarctic coast of Hokkaido, Japan
- 508 He: Nucleation and growth of iodic particles in the CERN CLOUD experiment
- 509 *Hepach*: Linking marine phytoplankton and atmospheric chemistry biogenic iodate reduction and potential impacts on tropospheric iodine
- 510 Jia: The Impact of Oceanic Emissions of Bromoform on the Remote Atmosphere
- 511 Jung: Characteristics of sulfur-containing aerosols and organic carbon in the Amundsen Sea,
 Antarctica
- 512 *Kameyama*: Development of Measurement System for Marine and Atmospheric Isoprene and Dimethyl Sulfide using Curie-Point Pyrolyzer (CPP)
- Kanaya: Comprehensive over-ocean atmospheric ozone measurements on R/V mirai from 67°S to 75°N during 2012-2017: Missing sink linked to iodine chemistry in low latitudes
- 514 *Kieber*: Photochemical production and biological turnover of acrylate in a coral reef ecosystem in Mo'orea, French Polynesia
- 515 Latif: Surfactants in the sea surface microlayer, subsurface water and fine marine aerosols in coastal areas around Malaysian Peninsula
- 516 Lawson: Atmospheric DMS, methanethiol and acetone over the South West Pacific during the SOAP voyage
- 517 Liu: Effects of Ulva prolifera blooms on the carbonate system in the southern Yellow Sea
- 518 *Manville*: High-resolution spatial variability lengthscales of surface ocean dimethylsulfide (DMS) concentrations
- 519 *Masdeu Navarro*: Day/night VOC's cycling in open ocean and coral reef ecosystems of the French Polynesia
- 520 Nishikawa: High-resolution modeling of iron and phosphate transport in the subarctic North Pacific
- 521 *Omori*: Quantification of microbial and photochemical production of oxygenated volatile organic compounds in coastal seawater
- 522 Ooki: Isoprene productions in seawater of the Funka Bay, Hokkaido, Japan
- 523 Schneider: Formation of Secondary Organic Aerosol from the Oxidation of T. pseudonana Cultures
- 524 *Sellegri*: Biological influences on atmospheric new particle formation during a mesocosm experiment in New Zealand coastal waters
- 525 Simó: Sources and sinks of DMS, isoprene and halomethanes in a coral reef ecosystem of the French Polynesia
- 526 *Tanimoto*: Air-sea exchange and budget of sulfur and oxygen-containing organic compounds in the Pacific Ocean
- 527 Tham: Observation of inorganic oxides and acids in the Atlantic coastal environment: implications on the aerosol formation and growth
- 528 Tjiputra: Amplification of future warming through changes in marine DMS emissions
- Wilson: Using time-series analysis to assess relationships between atmospheric volatile organic compounds, algal populations, microbial functioning, and marine gases



Tuesday, 23 April 2019 16:30 - 18:00 (cont.)

- 530 Yadav: Anthropogenic very short-lived halocarbons from seaweed farming in Southeast Asia
- 531 *Yang*: Transformation and cycling processes of biogenic dimethylated sulfur compounds in the East China Continental Sea
- 532 Yao: Mapping concentrations of ammonia in the marine atmosphere along the long coastline in China
- 533 Yu: Effects of nitrate and salinity on DMSP production and antioxidant systems of *Emiliania huxleyi* (Prymnesiophyceae)
- 606 Tjiputra: Asymmetry in air-sea CO₂ fluxes during rapid warming and rapid cooling scenario
- 607 Lauvset: Climate engineering and the ocean: Effects on biogeochemistry and primary production

17:30 - 19:00

Greenhouse gases and the oceans

- 101 González-Dávila: 24 years studying the fluxes of CO₂ and its effects in the estoc station
- 102 *Gu*: Dissolved nitrous oxide and hydroxylamine in the marginal seas of China: Distribution, emission, and production
- 103 Hakspiel: Nitrification and removal of dissolved inorganic nitrogen in the hypoxic layer of Alfonso Basin, Gulf of California
- 104 *He*: Distributions of volatile halocarbons in the marine atmosphere and seawater of the northern South China Sea during summer
- Lachkar: Air-sea CO₂ fluxes in the Arabian Sea under higher atmospheric CO₂ and warmer climate
- 106 *Le Nguyen*: The impact of the hydrodynamics on coastal mangrove forests in response to sea level rise and climate change
- 107 Miller: Re-examining photochemical oxidation of DOC to DIC/CO₂: methods, proxies and models
- 108 Nakaoka: fCO2 and sea-air CO2 flux variability in the global ocean from 2001 to 2014
- 109 Orselli: Satellite-derived carbon dioxide partial pressure along Agulhas eddies trajectories
- Santana-Casiano: Changes in the fluxes of CO₂ in the Mauritanian-Cap Vert upwelling region and its effect in the ocean acidification
- 111 Suntharalingam: Oceanic nitrous-oxide emission estimates from empirical and process models
- 112 Yasunaka: Arctic Ocean CO₂ uptake: an improved multi-year estimate of the air-sea CO₂ flux incorporating chlorophyll-a concentrations
- 113 *Yasunaka*: Spatio-temporal variability of surface water pCO₂ and nutrients in the tropical Pacific from 1981 to 2015
- 2hang: Distribution of concentration and stable isotopic composition of N₂O in the shelf and slope of the northern South China Sea: Implications for production and emission
- *Zhang*: Coastal Observation of Non-methane Hydrocarbons in the Yellow Sea and East China Sea during Spring: Spatial Variability, Controlling Factors and Environmental Effect



Wednesday, 24 April 2019 16:30 - 18:00

Air-sea interface and fluxes of mass and energy

201	Barbot: Internal tidal waves impact over the surface elevation and their seasonal variability
202	Dai: Surface Oil Film Effects on Hydrodynamic Properties of Short Wind-generated Waves
203	Du: Costal vulnerability connected with sea level rise and storm surge in the Northwest Pacific Ocea
204	Esters: Evaluation of a turbulence-based description of the air-water gas transfer velocity
205	Friman: Investigations of SO ₂ transfer across the air-water interface
206	Giostra: Influence of sub-mesoscale motions on dispersion in marine boundary layer
207	<i>Guo</i> : Seasonal deposition to and gas exchange of PBDEs at the air-water interface over a strongly human influenced large river estuary: role of atmospheric transport and riverine runoff
208	Horowitz: Blowing snow sea salt aerosol emissions and radiative effects in present and future climates
209	Kameyama: Typhoon-induced vertical mixing measured by the Kuroshio Extension Observatory buo
210	<i>Kang</i> : Air-sea interaction around the warm and cold eddies in low wind conditions within the eddyrich zone of the Northwestern Pacific
211	Kieber: Oceanic efflux of ancient marine dissolved organic carbon in primary marine aerosol
212	Kinjo: Measuring noble gas fluxes at high wind speeds in the sustain wind-wave tank
213	Komatsu: Measuring the air-sea interface using a bird-attached logger

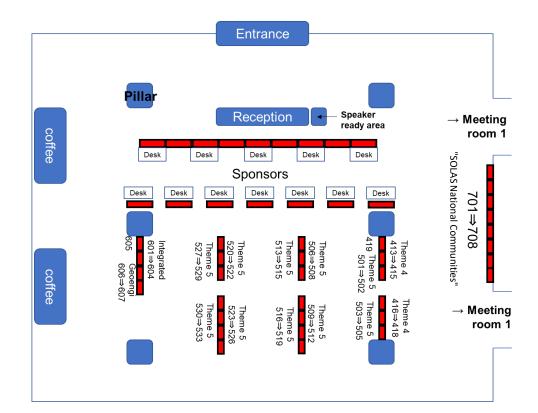
- 214 *Li*: Quasi-real-time and high-resolution spatiotemporal distribution of anthropogenic CO₂ in the subarctic North Pacific Ocean
- 215 Li: The relationship between the NAO and North Atlantic CO₂ flux on different timescales
- 216 Marandino: Baltic Sea Gas Exchange Experiment (Baltic GasEx)
- 217 Pan: Evaluation of oceanic anthropogenic fixed nitrogen in the western North Pacific
- 218 Rutgersson: Using land-based stations for air-sea interaction studies
- 220 *Shi*: North-South pathway of Sea Surface Salinity Anomaly combined with observation and satellite data in the west Pacific Warm Pool
- 222 Shi: The influence of sea spray on sea surface drag coefficient
- 223 Watanabe: Dynamics of fixed nitrogen cycling between the Okhotsk Sea and the subarctic North Pacific
- 224 Xu: Trends in the air-sea CO₂ exchange fluxes in the Southern and Northern Hemispheric oceans
- 225 *Yunoki*: Spatiotemporal changes of ocean acidification and anthropogenic CO₂ by using parameterizations of ocean carbon species in the western North Pacific
- 226 Zavarsky: Reynolds number parameterization of gas transfer suppression
- 227 Zhang: Preliminary study on atmospheric PAHs and flux deposition in coastal mangrove ecosystem
- 228 Zhou: Temporal changes of DMS mixing ratios in the air over the Baltic Sea
- 229 Zhou: The influence of wave induced Stokes drift on the sea surface temperature in North Pacific
- 230 Stolle: The effect of (No) light on the air-water interface
- 231 Zieger: Characterisation of sea spray simulation chamber generated bioaerosols in the Baltic Sea

n

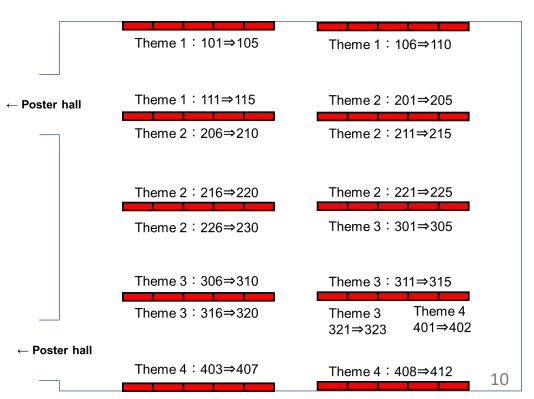


Poster location

Poster hall



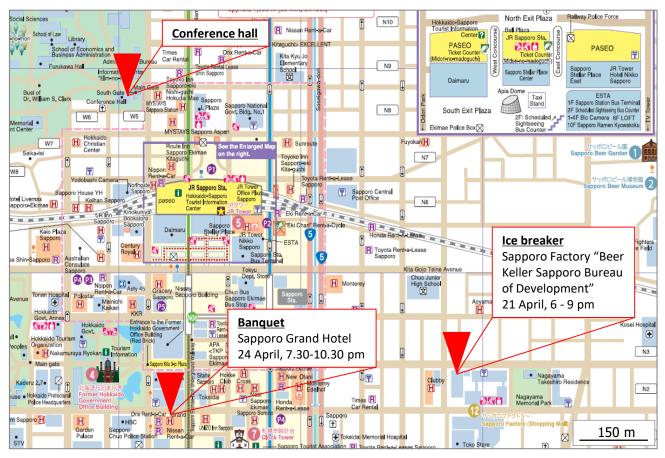
Meeting room 1





V. Overview Map

Conference hall and event locations



For a detailed route description to the **Ice breaker** and **Banquet** location, see the next two pages (page 5 - 6).

If you take a taxi:

As there are usually vacant taxis cruising in the streets, raise your hand to stop it. Taxis are also available at the JR Sapporo station as well as at some hotels.

Show the following to a taxi driver to go to:

Ice breaker

ビヤケラー札幌開拓使 (サッポロファクトリー レンガ館, 北2東4)

Banquet

札幌グランドホテル



VI. Event locations with direction maps

Conference hall -> Ice breaker



- -> approx. 25 min walk from the Conference hall
- -> approx. 10 min walk from the Sapporo TV tower







Ice breaker, Sunday 21 April, 6.00 - 9.00 pm

Beer Keller Sapporo Bureau of Development Brick building of Sapporo Factory (1F) / North 2, East 4, Chuo-ku, Sapporo





VI. Event locations with direction maps

Conference hall -> Banquet



-> approx. 15 min walk from the conference hall







Banquet, Wednesday 24 April, 7.30 - 10.30 pm Sapporo Grand Hotel (2F) / North 1, West 4, Chuo-ku, Sapporo



VII. Restaurant guide

Restaurants with lunch menus

No Name Category

A Elm no Mori Cafeteria (light meal)

B Hokudai Marche Restaurant
C Clark Cafeteria * Cafeteria
D Chuo Cafeteria * Cafeteria
E Elm Restaurant Restaurant

F Seicomart Store & Restaurant

1 Clark-Tei Restaurant 2 Hashimaya Ramen

3 THE KEBAP'S Turkish food restaurant

4 Maru Ramen

5 Go Bee Chinese food restaurant

6 Suriyothai Thai food restaurant

7 Dejeuner Campanula Restaurant 9 Jack in the box Soup curry 10 Marutaka Ramen Ramen 11 Kitchen taft B Restaurant

12 Chinman Chinese food restaurant

13 Hirose Shoten Ramen

14 Mos Burger Hamburger restaurant 15 Osteria EST EST EST Italian food restaurant

16 Shun Japanese food restaurant

17 CoCo ichibanya Curry

18 Kuromugi Buckwheat noodles
19 Yunron Chinese food restaurant
Japanese food
20 Kogane

20 Kogane restaurant

21 Yamawasabi Buckwheat noodles 22 Mizuki Buckwheat noodles

23 ROGA Curry

24 Erimo-Tei Japanese food restaurant Japanese food Japanese food

25 Fukagawa restaurant 26 Ushinoya BBQ house

27 Kofuku Chinese food restaurant

29 Ramen Jiro Jiro Ramen 30 Tsukimiken Ramen

31 Sopracciglia Italian food restaurant 32 Ichizen Buckwheat noodles 33 Mia Bocca Italian food restaurant

34 175° DENO Ramen

35 McDonald's Hamburger restaurant

36 Barikiya Ramen 37 Saint Marc cafe Cafe

The Republic of Ramen street Ramen







VIII. ATM services in Sapporo

Bank ATMs at 7-Eleven convenience stores

Many ATMs in Japan do not accept cards that are issued outside of Japan. Exception are ATMs at 7-Eleven convenience stores and at post offices.

Seven Bank ATMs, mainly located inside 7-Eleven convenience stores (see map below for 7-Eleven store location or use the QR code to find the next ATM).





- No. 1 4 are open from Mon-Sun, 7:00 am 10:00 pm.
- all other 7-Eleven convenience stores indicated at the map are open form Mon-Sun, 24 hours.

For details, please see the website: https://www.sevenbank.co.jp/intlcard/card2.html

Searching for the nearest Seven Bank ATMs, use this website: http://inbound.standard.navitime.biz/sevenbank-english/Index.act



Search via mobile ATM location.



IX. Sponsors and contact

SOLAS Open Science Conference sponsors

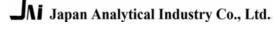
We thank all our sponsors for their contributions!

























KIMOTO









◎株式会社 日立ハイテクフィールディング





SOLAS Sponsors





近海海洋环境科学国家重点实验室(厦门大学)

State Key Laboratory of Marine Environmental Science (Xiamen University)





Contact

SOLAS International Project Office

GEOMAR Helmholtz Center for Ocean Research Kiel, Kiel, Germany

State Key Laboratory of Marine Environmental Science, Xiamen University, Xiamen, China

solas-osc@geomar.de

Editors:

SOLAS LOC, Hokkaido University, Japan SOLAS IPO, GEOMAR, Germany; MEL, Xiamen, China