

**SUNDAY 15<sup>TH</sup> NOVEMBER** 17:00 Registration 18:30 Ice breaker

**MONDAY 16<sup>TH</sup> NOVEMBER** 08:30 Registration

| TIME   | EVENT   | ABSTRACT                     | VENUE       |
|--|---|------------------------------|-------------|
| 09:00  | Introduction  |                              |             |
| <b>Theme:</b> Long-lived gases and ocean acidification <b>Chair:</b> Aida Ríos, Spain    |   |                              |             |
| 09:15  | <b>Keynote:</b> Ulf Riebesell, Germany<br>Ocean acidification and its potential effects on air/sea exchange of climate relevant gases       | p12                          | Auditori    |
| 10:00  | Laura Farias, Chile<br>Tracking the mechanisms of production and consumption of biogases in coastal upwelling ecosystems                    | p12                          | Auditori    |
| 10:20  | Urumu Tsunogai, Japan<br>Tracing nitrate and nitrous oxide in surface ocean using stable isotopes   | p13                          | Auditori    |
| 10:40  | COFFEE  |                              |             |
| <b>Theme:</b> Advances in gas exchange parameterization <b>Chair:</b> Wade McGillis, USA |   |                              |             |
| 11:00  | <b>Keynote:</b> Rik Wanninkhof, USA<br>Quantifying air-sea gas transfer velocities- Do we need more than wind speed?                        | p13                          | Auditori    |
| 11:45  | Christa Marandino, Germany<br>Measuring open ocean DMS fluxes: A comparison and synthesis of air-sea gas transfer velocity experiments      | p14                          | Auditori    |
| 12:05  | Brian Ward, Ireland<br>Toward quantification of upper ocean and lower atmosphere processes for improved determination of air-sea gas fluxes | p14                          | Auditori    |
| 12:25  | LUNCH   | See Conference Venue section | p48         |
| 14:30  | Parallel discussion sessions  |                              |             |
|  | Diego Fernández Prieto<br>Identifying SOLAS scientific requirements for a new joint ESA-SOLAS activity                                      | p26                          | Agora       |
|  | David Kieber<br>Ocean-derived aerosols: Production, evolution and impacts   | p26                          | Auditori    |
|  | Peter Liss<br>Large-scale experiments for SOLAS   | p27                          | Beta        |
|  | Stephen Archer<br>Laurens Ganzeveld<br>Does a halogen-ozone exchange feedback exist and dominate MBL reactive iodine atom sources?          | p27                          | Gamma       |
| 16:00  | COFFEE  |                              |             |
| 16:30  | Poster session – SOLAS Focus 1, Part 1  |                              | Poster hall |
| 18:00  | END   |                              |             |

**TUESDAY 17<sup>TH</sup> NOVEMBER**

| TIME   | EVENT   | ABSTRACT | VENUE       |
|--|---|----------|-------------|
| <b>Theme:</b> Surface ocean lower atmosphere interactions of the past <b>Chair:</b> Rainer Zahn, Spain |   |          |             |
| 08:45  | <b>Keynote:</b> Carles Pelejero, Spain<br>Acidification and carbon cycling in the oceans: Clues from the past   | p14      | Auditori    |
| 09:30  | Dani Schmidt, UK<br>Quantifying ocean acidification during the Paleocene Eocene thermal maximum   | p15      | Auditori    |
| 09:50  | Rebecca Robinson, USA<br>Lessons from the last ice age: High latitude controls on tropical ocean biogeochemistry  | p15      | Auditori    |
| 10:10  | Eric Galbraith, Canada<br>Modelling the impacts of past climate changes on global nutrient distributions  | p16      | Auditori    |
| 10:30  | COFFEE  |          |             |
| <b>Theme:</b> Aerosols over the ocean <b>Chair:</b> Eric Saltzman, USA                                 |   |          |             |
| 11:00  | <b>Keynote:</b> Mitsuo Uematsu, Japan<br>Distribution and chemical characterisation of marine aerosols over the Pacific Ocean                               | p16      | Auditori    |
| 11:45  | Trish Quinn, USA<br>Origins and composition of aerosol in the marine atmosphere   | p17      | Auditori    |
| 12:05  | Olga Mayol-Bracero, Puerto Rico<br>Carbonaceous aerosols over the Caribbean region  | p17      | Auditori    |
| 12:25  | Ashwini Kumar, India<br>Mineral and anthropogenic aerosols over the Arabian Sea and the Bay of Bengal   | p18      | Auditori    |
| 12:45  | LUNCH   |          |             |
| 14:30  | Parallel discussion sessions  |          |             |
|  | Nadja Steiner<br>Towards a better representation of ocean DMS emissions in global climate models - status of measurement issues and model parameterisations | p28      | Beta        |
|  | Véronique Garçon<br>Air-sea gas fluxes at Eastern Boundary upwelling systems  | p28      | Agora       |
|  | Cécile Guieu<br>Atmospheric control of nutrient cycling and production in the surface ocean   | p29      | Auditori    |
|  | Marc Mallet - Richard Sempéré<br>Ocean-atmosphere interactions in the Mediterranean Sea   | p29      | Gamma       |
| 16:00  | COFFEE  |          |             |
| 16:30  | Poster session – SOLAS Focus 2  |          | Poster hall |
| 18:00  | END   |          |             |

WEDNESDAY 18<sup>TH</sup> NOVEMBER

| TIME  | EVENT  | ABSTRACT   | VENUE        |
|---|--|--|--------------|
| <b>Theme:</b> Advanced techniques for SOLAS <b>Chair:</b> Doug Wallace, Germany     |  |  |              |
| 08:45   | Marcel Kuypers, Germany                            | Quantifying microbial activity in the ocean: From single cells to global fluxes                            | p18 Auditori |
| 09:15   | Oscar Schofield, USA                               | Dawn in the age of robotic oceanography: Building an autonomous distributed network for the world's oceans | p19 Auditori |
| 09:45   | Mick Follows, USA                                  | Modelling marine microbes: Physiology, community structure and biogeochemical function                     | p19 Auditori |
| 10:15   | Peter Liss, UK                                     | SOLAS and the spectre of geo-engineering   | p20 Auditori |
| 10:45   | COFFEE   |  |              |
| <b>Theme:</b> Ozone and halogens over the ocean <b>Chair:</b> Roland von Glasow, UK |  |  |              |
| 11:20   | <b>Keynote:</b> John Plane, UK                     | Halogen chemistry in the marine boundary layer   | p20 Auditori |
| 12:05   | Alexandra Steffen, Canada                          | Understanding atmospheric mercury in the world of ozone and halogens over the Arctic Ocean                 | p21 Auditori |
| 12:25   | Alfonso Saiz-Lopez, Spain                          | Possible climatic impacts of reactive halogens in the tropical marine atmosphere                           | p21 Auditori |
| 12:45   | LUNCH  |  |              |
| 14:30   | Parallel discussion sessions                       |  |              |
|   | Roland von Glasow                                  | Ship plumes  | p30 Beta     |
|   | Jacqueline Stefels                                 | Sea ice biogeochemistry and exchange with the atmosphere   | p30 Auditori |
|   | Mitsuo Uematsu                                     | Future for the Asian Dust and Ocean EcoSystem (ADOES) with Asian SOLAS                                     | p31 Gamma    |
|   | Cliff Law  | Ocean fertilization: Legislation, ethical considerations and the role of SOLAS                             | p31 Agora    |
| 16:00   | COFFEE   |  |              |
| 16:30   | Poster session – SOLAS Focus 3 and Focus 1, Part 2 |  | Poster hall  |
| 18:00   | END  |  |              |
| 19:30   | CONFERENCE BANQUET See Local Information Section   |  | p52          |

THURSDAY 19<sup>TH</sup> NOVEMBER

| TIME  | EVENT                                | ABSTRACT  | VENUE        |
|---|--------------------------------------|---|--------------|
| <b>Theme:</b> Nutrient limitation and atmospheric deposition <b>Chair:</b> Cliff Law, New Zealand       |                                      |   |              |
| 08:45   | <b>Keynote:</b> Cécile Guieu, France | Impact of atmospheric inputs on oligotrophic ecosystems   | p22 Auditori |
| 09:30   | Gwo-Ching Gong, Taiwan               | Effect of Asian dust storm on upper ocean biogeochemistry in the nutrient limited Northwest Pacific Ocean   | p22 Auditori |
| 09:50   | Alex Baker, UK                       | Field observations of nutrient deposition to the Atlantic Ocean   | p23 Auditori |
| 10:10   | Jordi Dachs, Spain                   | Atmosphere-ocean exchanges of organic matter: Characterization, fluxes and significance   | p23 Auditori |
| 10:30   | COFFEE                               |   |              |
| <b>Theme:</b> Genomic and genetic studies of ocean-atmosphere exchanges <b>Chair:</b> Ronald Kiene, USA |                                      |   |              |
| 11:00   | <b>Keynote:</b> Maryann Moran, USA   | Regulation of bacterial DMSP degradation: A functional genomic approach   | p24 Auditori |
| 11:45   | Rebecca Langlois, Germany            | Factors influencing the distribution and abundance of diazotrophs: A qPCR approach  | p24 Auditori |
| 12:05   | Thomas Mock, UK                      | Whole-genome expression profiling of the marine diatom <i>Thalassiosira pseudonana</i> to identify the molecular underpinnings of nutrient limited growth | p25 Auditori |
| 12.25   | Closure remarks                      |   |              |
| 12:35   | END                                  |   |              |

## Will you host the next Open Science Conference in 2012?

We hope that this conference might inspire you to be willing to host the next OSC! Please feel free to question and discuss your ideas with any members of the local organising committee, scientific steering committee or SOLAS IPO during the conference. Alternatively, you can e-mail us at [solas@uea.ac.uk](mailto:solas@uea.ac.uk).