

Special Issue on Marine Aerosol-Cloud-Climate Interaction

Call for Papers

Over the past two decades, in situ measurements, satellite remote sensing, and modeling efforts have shown important biogeochemical interactions and feedbacks between the ocean and atmosphere. However, these studies have also revealed the inherent complexity of ocean-derived aerosol-cloud interaction with multiple forcings and feedbacks, influencing the direct and indirect radiative effects of aerosols and the abundance of long-lived greenhouse gases. Fluxes of aerosols from the ocean ecosystem to the overlying atmosphere (e.g., sea spray generation of sea salt and primary marine organic aerosols and secondary aerosols resulting from ocean-emitted trace gases) are of fundamental importance to understand the Earth radiation budget and coastal air quality.

We invite contributions of original research articles and review articles that will stimulate the continuing effort to improve quantification of the radiative and climatic effects of marine aerosols. It is our goal for this special issue to become an international forum that brings together both atmospheric and oceanic scientists interested in an improved quantification of marine aerosols and their role in future projections of climate. Results from laboratory studies, in situ measurements, remote sensing observations, and modeling studies are welcome. Special emphasis will be given to results obtained within the last five years. The topics to be covered include, but are not limited to:

- In situ measurements and remote sensing of DMS and other reactive trace gas emissions from the ocean
- Marine ecosystem fluxes and spatial distribution of reactive trace gases in marine boundary layer
- Effect of plankton speciation on types and scale of marine aerosol and reactive trace gas emission
- Coastal and open ocean nucleation events
- Spatial and temporal distribution of aerosol fluxes from the ocean
- Chemical composition of marine primary and secondary organic aerosol
- CCN and IN activation properties of marine submicron aerosol
- Effect of marine aerosols on incoming radiation
- Marine aerosols emissions and their effects on shallow and deep convective clouds (models and observations)

- Modeling ocean biologically generated reactive gases associated with aerosol formation and fluxes to the atmosphere

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/amet/guidelines.html>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/> according to the following timetable:

Manuscript Due	February 15, 2010
First Round of Reviews	May 15, 2010
Publication Date	June 15, 2010

Lead Guest Editor

Nicholas Meskhidze, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC, USA; nmeskhidze@ncsu.edu

Guest Editors

Charles R. McClain, NASA/Goddard Space Flight Center, Greenbelt, MD 20771, USA; charles.r.mcclain@nasa.gov

Markus D. Petters, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC, USA; markus_petters@ncsu.edu

Elisabetta Vignati, Joint Research Centre, Institute for Environment and Sustainability, Climate Change Unit, Ispra, Italy; elisabetta.vignati@jrc.ec.europa.eu

Chris Osburn, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC, USA; closburn@ncsu.edu

Olaf Stetzer, Institute for Atmospheric and climate Science, Department for Environmental Sciences, ETH Zurich, Zurich, Switzerland; olaf.stetzer@env.ethz.ch

David J. Kieber, State University of New York, Syracuse, New York 13210, USA; djkieber@esf.edu