

# International Cooperative for Aerosol Prediction (ICAP) 4th Workshop: Aerosol Emission and Removal Processes

## Meeting Organizers and POCs:

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**When and Where:** May 14 – 17, 2012, ESA/ESRIN, Frascati, Italy

Meeting hosted at: ESRIN, ESA Centre for Earth Observation. Travel Information to follow.

ICAP Website: <http://bobcat.aero.und.edu/jzhang/ICAP/>

**Rationale:** This 4<sup>th</sup> ICAP meeting will focus on issues and recent advances in the description of aerosol processes related to production and removal. Some of these issues were identified at the previous ICAP meeting as crucial to the further development of the forecast and analysis systems. Most forecast “busts” observed in the aerosol forecasts from the ICAP models can in fact be ascribed either to a poor representation of the emissions and/or to the parameterizations related to aerosol sinks (wet deposition, sedimentation, aqueous chemistry, etc). Some of these issues are also faced by the climate modeling community (i.e. AEROCOM). Some mutually beneficial solutions will be sought through a series of informative invited tutorials, followed by discussions. Challenges presented by highly temporally varying emission sources, such as wildfires, will be discussed. State-of-the-art (NRT) emissions methods will be reviewed.

The ICAP meeting will be complemented by a one day workshop on the benefits of present and future satellite observations in aerosol science, modeling and assimilation with potential presentations by ESA and other international satellite data providers.

## Overarching Goals and Outcomes of Aerosol Emission and Removal Processes Meeting:

- a) Overview state-of-the-art in aerosol emission and removal processes modeling.
- b) Identify areas in which fast improvements can be made in forecasting systems.
- c) Discuss the role of observations (in situ/satellite) in helping the development of parameterizations and the description of the emission sources.
- d) Examine current capabilities and uncertainties in inverse modeling through assimilation.
- e) Discuss longer term goals and objectives in aerosol science from the point of view of the operational centres and the multi-model ensemble developments.

**Format:** This meeting will host centre summaries and key presentations/tutorials. Presentations are by invitation only. Most of the time will be devoted to discussion and action planning. A tentative schedule is to be determined.

**Registration Fee:** None requested.