



SPSAS on Atmospheric Aerosols

Organizers:



Universidade
de São Paulo



Sponsors:



The São Paulo School of Advanced Science on Atmospheric Aerosols: Properties, Measurements, Modeling, and Effects on Climate and Health

July 22 to August 2, 2019

<http://spsas-aerosols.if.usp.br>

About

The **São Paulo School of Advanced Science on Atmospheric Aerosols** will provide participants, from different parts of the world, with the opportunity to learn in an intense and synergistic way the various theoretical and observational aspects of aerosol **Properties, Measurements, Modeling, and Effects on Climate and Health**.

Internationally renowned scientists will introduce participants to the state-of-the-art of aerosol research and will highlight the most interesting open scientific questions, thus contributing to a solid formation of these future scientists. The school environment was tailored to promote great interaction between participants and lecturers, thus allowing the development of collaborative networks that will boost the careers of these young scientists.

The school will be held from July 22 to August 2, 2019 at the University of Sao Paulo, and is organized by the Institute of Physics in partnership with IAG-USP, CLA-IPEN, DCA-UNIFESP and CPTEC-INPE, and is sponsored by FAPESP.



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Background

Atmospheric aerosols are an important climate driver, as they alter the planetary radiation balance, cloud properties and the hydrological cycle. They also cause economic and social impacts. High concentrations of aerosols are associated with high levels of pollutant emissions into the atmosphere, thus seriously impacting public health in urban and remote areas. Aerosols are also important agents in biogeochemical cycles, actively participating in transport of nutrients between ecosystems, in some cases on an intercontinental scale. Quantifying the effects of aerosols on ecosystems, climate and human health is a scientific challenge that this school will address in its many facets.

Program

The *SPSAS on Atmospheric Aerosols* will offer theoretical classes, practical experimental activities, poster sessions and visits to research institutions. In all, there will be 85 hours of activities in 12 days. Participants will be exposed to the state-of-the-art of scientific knowledge in five major subject areas:

- Aerosol properties and measurements
- Anthropogenic aerosols and their effects on health
- Aerosol-cloud-radiation interaction
- Remote sensing of aerosols
- Aerosols perturbations on climate, and modeling of their effects

The practical classes on remote sensing instrumentation, measurements and analysis will be held outdoors in a field trip to a public park of Sao Paulo. Participants will have the opportunity to perform measurements, calibrate sensors, study and model the properties of suspended particles in the atmosphere.

Poster sessions will allow participants to present their research. Posters will be on display throughout the school, allowing its discussion with all invited lecturers. The best posters will be awarded a special prize during the closing ceremony.

Speakers

- Prof. Dr. Maria de Fátima Andrade (University of Sao Paulo)
- Prof. Dr. Paulo Eduardo Artaxo (University of Sao Paulo)
- Prof. Dr. Hans-Christen Hansson (Stockholm University)
- Prof. Dr. Helmuth Horvath (University of Vienna)
- Prof. Dr. Maria Kanakidou (University of Crete)
- Prof. Dr. Ilan Koren (Weizmann Institute of Science)
- Prof. Dr. Eduardo Landulfo (Nuclear and Energy Research Institute)
- Prof. Dr. Luiz Augusto Toledo Machado (Brazilian Institute for Space Research)



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- Prof. Dr. José Vanderlei Martins (University of Maryland Baltimore County)
- Prof. Dr. Lorraine Remer (Joint Center for Earth Systems Technology)
- Prof. Dr. Paulo Hilário Nascimento Saldiva (University of São Paulo)
- Prof. Dr. Alfred Wiedensohler (Leibniz Institute for Tropospheric Research)

Who can apply?

The target audience is graduate students and early career scientists. Priority will be given to candidates currently enrolled in graduate programs (Masters/MSc and Doctoral/PhD courses), but senior undergraduate and young researchers (up to 5yr from PhD) are also welcome. We encourage applications from candidates with different academic backgrounds (natural, social and human sciences, engineering) provided their academic work is related to the themes of the school.

Application information

Application period: February 1st to March 24th, 2019

Online electronic applications at: <http://spsas-aerosols.if.usp.br>

Selected students will be announced by: 21st April 2019

About 100 applicants, 50 from Brazil and 50 from other countries will be selected to participate in the Advanced School. Participants will be selected based on their application information, the relation of their academic work to the school themes, and disciplinary, gender, and regional balance considerations.

The Advanced School will be conducted in English. Applicants therefore must be proficient or have a sound understanding of the English language in order to understand, communicate, and participate actively in the School activities.

Financial support

About 80 travel grants are available for Brazilian students from outside São Paulo and foreign students. If you need financial support, or if you can cover your own travel costs, please let us know in the application form.

Contact

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