

# SPSAS Climate Change

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## São Paulo School of Advanced Science on Climate Change: Scientific basis, adaptation, vulnerability and mitigation

3-15 July 2017, São Paulo, Brazil

### About

The **São Paulo School of Advanced Science on Climate Change: Scientific basis, adaptation, vulnerability and mitigation** will take place from 03 to 15 July 2017 at the University de São Paulo (USP), São Paulo, Brazil. The School is organized by the INterdisciplinary CLimate INvestigation cEnter (INCLINE) and the Inter-American Institute for Global Change Research (IAI), and sponsored by the São Paulo Research Foundation (FAPESP), Pró Reitoria de Pesquisa/University of São Paulo (PRP/USP), IAI and Santander.

The IAI is an intergovernmental organization established by 19 countries of the Americas that pursues the principles of scientific excellence, multinational collaboration in global change research, and the full and open exchange of scientific information.

### SPSAS Climate Change

The School aims to contribute to the training of graduate students in the area of climate change. The school will foster the exchange of knowledge from many disciplines and sectors, among the participants and with School lecturers and organizers. It will also promote the development of collaborative networks to gather a critical mass of young scientists interested in climate change and its impacts on ecosystems and society.

## Background

Environmental research is complex and involves a variety of topics, such as water, land, biodiversity, pollution, food security. Climate change adds to the complexity and enhances the discussion of environmental problems. It requires more comprehensive and interdisciplinary studies to aid decision-making and actions needed for the benefit of the planet and society. Because of its overarching importance, climate change has been constantly in the public eye, especially since the creation of the Intergovernmental Panel on Climate Change (IPCC) in 1988. Programs have been established to foster climate change studies in many countries. Examples of research programs on climate change in Brazil are: FAPESP Research Program on Global Climate Change (RPGCC), the Brazilian Research Network on Global Climate Change (Rede Clima), the Brazilian Panel on Climate Change (PBMC), and the INCT for Climate Change (INCT-MC). In the Brazilian academic field, research groups, such as INCLINE, have contributed to the discussion of climate change sciences with contributions from many scientists and universities in the country.

## Goal

To provide graduate students with advanced knowledge on climate change science and related topics, including aspects of public policy. Participants will discuss with renowned scientists important themes of the three Fifth IPCC Assessment Report Working Groups, in a multidisciplinary and multicultural context.

## Program

The course is organized around five major themes: (1) Observations and future projections (scientific basis); (2) Impacts; (3) Vulnerability; (4) Adaptation and mitigation; and (5) the Paris Agreement: Are 1.5 degrees a reasonable limit? The 2-week course will include theoretical classes, work in groups, a poster session, science-policy discussions, and visits to key institutions in the State of São Paulo conducting climate change research with policy applications.

Specific topics are:

- Introduction: indicators of climate change and treatment of uncertainties;
- Observations: atmosphere, ocean and surface;
- Detection and attribution of climate change: from global to regional;
- Information from paleoclimate archives;
- Evaluation of climate models & tendencies;
- Impacts of modes of climate variability: monsoon, ENSO, annular modes;
- Urban areas in the global change context;
- Natural and managed resources and systems, and their uses (freshwater resources; coastal systems and low-lying areas; food security and food production systems);
- Human health, well-being, and security (human health: impacts, adaptation, and co-benefits; human security; livelihoods and poverty);

- Adaptation (adaptation needs and options; adaptation planning and implementation; adaptation opportunities, constraints, and limits; economics of adaptation);
- Agriculture, forests and other land uses;
- Consequences on ecosystem functioning and ecosystem services provision;
- Drivers, trends, and mitigation;
- Energy systems;
- The Paris Agreement: Are 1.5°C a reasonable limit? - a debate.

## Speakers

- Prof. Dr. Cristiano Mazur Chiessi (Universidade de São Paulo)
- Prof. Dr. Edwin Castellanos (Universidad del Valle de Guatemala)
- Prof. Dr. Ernest Jeffrey Moniz (MIT Energy Initiative) – *to be confirmed*
- Prof. Dr. Gerardo Perillo (Universidad Nacional del Sur)
- Prof. Dr. Hartmut Graßl (Max-Planck-Institut für Meteorologie)
- Prof. Dr. Holm Tiessen (Inter-American Institute for Global Change Research)
- Prof. Dr. Iracema F. A. Cavalcanti (Instituto Nacional de Pesquisas Espaciais)
- Prof. Dr. José Paruelo (Universidad de Buenos Aires)
- Prof. Dr. Maria Carmen Lemos (University of Michigan)
- Prof. Dr. Maria de Fatima Andrade (Universidade de São Paulo)
- Prof. Dr. Weber Antônio Neves do Amaral (Universidade de São Paulo)

## Who can apply?

This School is for graduate students and early career scientists. Priority will be given to candidates currently enrolled in graduate programs (Masters/MSc and Doctoral/PhD courses). We encourage applications from students from different academic disciplines (natural, social and human sciences, engineering) provided their academic work and study is related to the themes of the school and related topics.

## Application information

**APPLICATION DEADLINE: 31 March 2017**

**APPLICATION FORM:** <http://www.iag.usp.br/inscricoes/spsascc>

Applicants must fill out the application form and submit a short CV (no more than 2 pages) as well as a reference letter from a thesis advisor indicating the expected benefits for the applicant's academic work and studies. All material should be submitted in English.

Applicants must clearly state the reasons for their personal and academic interest in the school and why they should be selected to participate.

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 the merit of their application information, the relevance of the academic work and studies related to the school themes, and disciplinary, gender and regional balance considerations. Applicants should receive a communication from the organizing committee by no later than 30 April 2017.

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

A limited number of travel grants is available. If you need financial support, please indicate so in the application form when required. If you can cover your own travel costs, please let us know in the application form.

## Certificates

Participants will receive a certificate acknowledging their participation in the School, provided that they attend all sessions of the program.

## Website of the School

<http://inclineusp.wixsite.com/spsascc>

Note: The website in the link above was created using Wix. Some public institutions may restrict access to certain URLs, including the Wix servers. If you can't access the School's website using the link above, please try this other link to visualize a simpler version of more information on the Advanced School: <http://www.incline.iag.usp.br/data/spsascc>

All information concerning the School is also available at the IAI website at <http://www.iai.int/?p=18544>

## Contact

If you need further information:

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