

2nd ENA Workshop/ Summer Course on *Earth-system processes in the Atlantic*

Academia de Juventude e das Artes at Praia da Vitória City, Terceira Island, Azores, 2-7 July 2017,

Coordination: Eduardo Brito de Azevedo (UAc), Jian Wang (BNL), Michael Jensen (BNL); Pedro Miranda (IDL).

Taking the opportunity of the “*Aerosol and Cloud experiments in the Eastern North Atlantic (ACE_ENA)*” campaign, which is bringing to the Azores a group of scientists to study processes in the maritime atmosphere, the University of the Azores (through IITAA at the Faculty of Agrarian and Environmental Sciences), the University of Lisbon (through Instituto Dom Luiz at the Faculty of Sciences), the Portuguese Institute for Sea and Atmosphere (IPMA) and the ACE_ENA team offer a 1 week workshop/summer_course on earth-system processes. The course will look at the Azores region as a natural laboratory for Earth studies, where the atmosphere, the ocean, the geosphere and the biosphere interact, defining the local climate but also constraining climate on the global scale.

There is no registration fee. However, students are required to cover their travel/accommodation expenses.

The EARTHSYSTEMS PhD program will support a number of students from the University of Lisbon.

Applications to: Ricardo Serpa<rfserpa12@gmail.com>

Applicants should send a short motivation letter, and (optionally) the title of a short (10 min) presentation to present at the course.

Applications close 1 June 2017.

- The course will start with a field trip to key volcanic sites on Terceira Island;
- Students are invited to present their research in a short (10 min) talk;
- Small changes in the schedule may occur due to the ACE_ENA campaign requirements.

Lecturers:

Ana Barros (Duke University – USA)
Ana Machado (IDL - FC - University of Lisbon - PT);
Ana Martins (FCT - University of Azores – PT)
Armand Hernandez (IDL - FC - University of Lisbon - PT);
David Mechem (University of Kansas - USA), (*ACE-ENA Forecasting Team);
Eduardo Azevedo (IITAA - University of Azores - PT);
Emanuel Dutra (IDL - FC - University of Lisbon - PT);
Fátima Viveiros (IVAR – University of Azores - PT);
Fernando Barriga (IDL - FC - University of Lisbon - PT);
Francisco Cota Rodrigues (FCAA – University of Azores - PT);
Jian Wang (Brookhaven National Laboratory - USA), (* ACE-ENA Campaign PI);
Joana Barcelos Ramos (IITAA- University of Azores - PT);
Julie Pullen (Stevens Institute of Technology - USA)
Mark Miller (Rutgers University – USA);
Nuno Álvaro (IITAA - University of Azores - PT);
Pedro Miranda (IDL - FC - University of Lisbon - PT);
Raymond Shaw (Michigan Technological University – USA);
Ricardo Ramalho (IDL- FC - University of Lisbon - PT);
Rui Caldeira (Oceanic Observatory of Madeira – PT);
Scott Giangrande (Brookhaven National Laboratory - USA), (*ACE-ENA Forecasting Team);
Susana Barbosa (INESCTEC - PT)
Susana Custódio (IDL - FC - University of Lisbon - PT);
Vitor Magalhães (IPMA – PT)
Xiquan Dong (University of Arizona - USA), (*ACE-ENA Forecasting Team);

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Observatory of the
Environment of the Azores



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Program (some changes are admitted):

2	9:00	17:00	Geological field trip (Francisco Cota Rodrigues, Fátima Viveiros) including a talk on volcanic gaseous emissions
3	9:00	9:50	Eduardo Azevedo: Introduction. Geographical and environmental description of the Azores
	10:00	10:50	Jian Wang: Aerosol Processes and Overview of ACE-ENA Field Campaign
	11:00	11:50	Jian Wang: Aerosol Processes and Overview of ACE-ENA Field Campaign
			LUNCH break
	14:00	14:50	David Mechem: MBL Clouds, Climatic Importance, Dynamics, Lifecycle
	15:00	15:50	David Mechem: MBL Clouds, Climatic Importance, Dynamics, Lifecycle
	16:00	16:50	Ana Machado: Ocean circulation in the North Atlantic (1)
4	9:00	9:50	Scott Giangrande: ARM Radar Operations and Science at ENA, ARM Facilities
	10:00	10:50	Armand Hernandez: Paleoclimate proxies from Azorean lake cores
	11:00	11:50	Ana Martins: Biological processes at the ocean surface and ocean color
			LUNCH break
	14:00	14:50	Julie Pullen: Atmosphere ocean interactions
	15:00	15:50	Rui Caldeira: Island Wakes
	16:00	16:50	Ana Machado: Ocean circulation in the North Atlantic (2)
5	9:00	9:50	Joana Barcelos Ramos: Carbon fluxes at the ocean surface
	10:00	10:50	Nuno Álvaro: Intertidal communities' responses to environmental disturbance
	11:00	11:50	Fernando Barriga: Hydrothermalism and geochemistry of the deep ocean
			LUNCH break
	14:00		VISIT to the ENA operations site (TBC)
6	9:00	9:50	Raymond Shaw: MBL Cloud Microphysics, Holodec Instrument and ACTOS
	10:00	10:50	Pedro Miranda: Atmospheric flow near mountains and mountain waves
	11:00	11:50	Ana Barros: Orographic precipitation
			LUNCH break
	14:00		Emanuel Dutra: Surface processes and the hydrological cycle
	15:00		Emanuel Dutra: Surface processes and the hydrological cycle
	16:00		10 min Presentations by students
7	9:00		Xiquan Dong: MBL Cloud and Aerosol Interactions, General Aircraft Measurements
	10:00		Ricardo Ramalho: The emergence and evolution of ocean island volcanoes
	11:00		Vitor Magalhães: Geosphere-bio-hydro-atmosphere coupling processes at mud volcanoes, cold seeps and pockmarks
			LUNCH break
	14:00		Susana Custódio: Ocean-solid Earth coupling in storms
	15:00		Susana Barbosa: Environmental radioactivity - solid Earth - atmosphere coupling
	16:00		10 min Presentations by students
	17:00		Conclusion