



# TRAINING COURSE

## EASI - Exploring Air-Sea Interaction via Airborne Measurements

SHANNON, IRELAND, 25 JUNE - 4 JULY 2017

ORGANISED BY CNR-ISAC AND EUFAR, WITH FUNDING FROM EUFAR

The primary goal of the EASI training course is to teach and train early-stage researchers (PhD and Post-docs) and university lecturers on the use of a research aircraft, and on the experimental possibilities it opens for atmospheric physics and chemistry research. This implies providing them with an overview of airborne and remote sensing experimental techniques, and of specific features of collecting and analysing airborne measurements. In addition, EASI aims to transfer consolidated knowledge on and recent advancements in specific topics related to air-sea interaction, and near coastal boundary layer structure and dynamics.

Specifically, flight experiments performed with the French SAFIRE aircraft ATR42, and lectures during the course will address the problem of air-sea interaction, focusing on turbulence fluctuations in the near-coastal boundary layer, clouds microphysics, atmospheric composition, marine aerosols and the impacts on climate, momentum and heat exchanges at the air/sea interface. Lectures will be alternated with working group sessions on instrument calibration, safety issues and data analysis. Participants will also have the opportunity to visit the Mace Head Atmospheric Research Station.

Subject to operational constraints, all participants will have the opportunity to participate in a research flight with the ATR42. The flight experiments will include data collection of physical quantities related to turbulent fluctuations, radiative properties and microphysical properties in the near-coastal boundary layer and in marine clouds.

**Data acquired during the training course or archived data will be processed and analysed with the support of experienced users of airborne facilities and form the basis for the final scientific report. Archived data will also be made available after the course via the EUFAR website.**

### THROUGH EASI, PARTICIPANTS WILL LEARN HOW TO:

- design and develop a flight plan for a flight experiment;
- develop a sampling strategy for the specific goals of the flight experiment given the available instruments;
- post-process flight experiment data;
- analyse the acquired and archived data through statistical methods for a better understanding of air-sea interaction related phenomena.

Participants are expected to gain a better understanding of the complexities and uncertainties associated with atmospheric observations via airborne platforms. This should provide a greater scientific impact to their future airborne campaigns, in terms of the sampling strategies and of the statistical use of airborne observational data.

### SCIENTIFIC COMMITTEE

A. S. Lanotte (CNR ISAC & INFN, IT)  
F. Cairo (CNR ISAC, IT)  
I. Reusen (EUFAR ET coordin., VITO, BE)

### ORGANISING COMMITTEE

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**EUFAR brings together operators of instrumented aircraft and remote-sensing instruments, and experts in airborne measurements in the field of environmental in the atmospheric, marine, terrestrial and Earth Sciences.**

**For more information and to become a member of EUFAR, visit: [www.eufar.net](http://www.eufar.net)**

**Applicants:** PhD students, post-docs and university lecturers (number of participants is limited to 20)

**Fee:** no registration fee

**Travel & subsistence:** 100% funded by EUFAR for selected applicants working in an institution established in a European Member State or Associated State

**Information & Registration:** [www.eufar.net/projects/education-and-training/](http://www.eufar.net/projects/education-and-training/)

**Deadline:** 31 March 2017

Selected participants will be notified by 30 April 2017

**For information, contact:** EUFAR Office - [bureau@eufar.net](mailto:bureau@eufar.net)



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