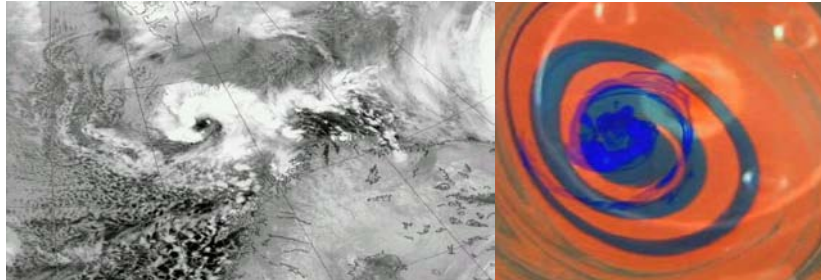


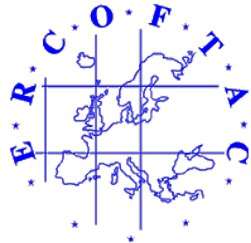
**INTERNATIONAL SUMMER COURSE
AND WORKSHOP ON COMPLEX
ENVIRONMENTAL TURBULENT FLOWS**



30th June – 5th July 2015
ERCOFTAC, CIMNE -UPC, MIO, CUM, PELN_oHT
Castelldefells, Barcelona, Spain.



UNIVERSITAT POLITÈCNICA DE CATALUNYA



First Announcement



Organizing and Supporting Institutions:

ERCOFTAC, UPC, CIMNE M.I.O. CNRS, TOULON, UPC
UNIVERSITAT POLITÈCNICA DE CATALUNYA, DEPT. FÍSICA
APLICADA. PAN EUROPEAN LABORATORY on NON -
HOMOGENEOUS TURBULENCE.

Further Information and Registration:

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Fax(+34) 93401 6090. redondo@fa.upc.edu / jpons@cimne.upc.edu

<http://CIMNE.upc.es>
<http://www.campusmed.net>

Location:

**Sala Lounge CIMNE Castelldefells, C-3 building,
Campus del Baix Llobregat &
Vilanova i la Geltrú, 08800 Barcelona, Spain.**



CIMNE-CASTELLDEFELS

PRESENTATION AND OBJECTIVES

The UPC at the Vilanova i la Geltru Campus and UPC- CIMNE at Castelldefels will host the ERCOFTAC international summer school on Complex Environmental Turbulent Flows. This follows similar events organized in Vilanova, Madrid, Warsaw, Prague, Volos and Barcelona since 1992. The main motivation for this 2015 Summer School is to study in depth Transport and diffusion in non-homogeneous, non-isotropic and non-stationary turbulence mostly affected by body forces, which is typical of Environmental Flows. Magnetic fields, Stratification and Rotation are fundamental processes affecting turbulence in industrial and environmental flows, for example to predict convective heat transport, pollutant diffusion and mixing. Reactions, solute transport in Environmental Fluid Dynamics, direct and inverse cascades in turbulence at different scales will be discussed with related topics. The experimental part of the summer school and a series of student presentations will be done at the ERCOFTAC PAN-EUROPEAN LABORATORY ON NON-HOMOGENEOUS TURBULENCE with a one day dedicated Workshop during the summer school.

MAIN TOPICS OF THE CONFERENCE

3D and 2D Turbulence, Astrophysical and Geophysical flows. Oceanographic and Meteorological Applications.

Thermoelectric and Thermomagnetic transport, Mixing and Dispersion in the Environment. Pollution detection, control and prediction

Laboratory experiments in Industrial and Environmental flows...

Invited Lecturers (Organizers *) of the conference are :

P. Fraunié*(MIO, U. Toulon, France), L. Sorriso-Valvo (Univ. Calabria, Italy), J. Pons*, P. Arnau(CIMNR, Castelldefels, Spain), A. Castilla (UPC. Terrasa), T. Bodnar (ITM, CTU Prague, Czech Rep.) J.M. Redondo* (UPC, Barcelona, Spain), J.J Martinez-Benjamin, M. Diez (EPSEVG, Vilanova, Spain) (O.B. Mahjoub (U.A.E/Tanger.

Universia, Morocco), Y. Chashechkin /E. Shapina (I.P.M, Moscow, Russia). J.M. Sanchez Carcar (BEROTZA, Pamplona, Spain). Greg King (DAMTP, U. Cambridge, UK). P. Huq (U. Delaware, USA). D. Cano (WMO, CH).

Participants, as well as scientists affiliated to the PELNoHT, ERCOFTAC related Special Interest Groups and to the XTDFGT international turbulence Network are invited to present their recent research in related topics.

REGISTRATION

The cost for the conference is 70 Euros. A reduced fee of 40 Euro is available for students and ERCOFTAC members. This will cover lunch during the conference, Lecture Materials, coffee breaks and the course reception. A selection of papers presented at the conference will be published at one of ERCOFTAC Journals: such as the Journal of Flow, Turbulence and Combustion (Kluwer). ERCOFTAC grants for young post doctoral or research students will be also available.

Please send an e-mail with arrival dates and to (jpons@cimne.upc.edu , redondo@fa.upc.edu) before **June 1, 2015**.



How to arrive to Castelldefells UPC Campus

*From the Airport: Take the RENFE railway towards Barcelona SANTS, at EL PRAT change trains and take the southward train Line C2 towards Castelldefells

*From Highway C-32: Exit at Campus UPC towards near Castelldefells

*From Barcelona take RENFE Line C-2 and stop at Castelldefells, cross the bridge over C-32 in 500m you are at the UPC Campus and RESA residence and near C-3 building.

How to arrive to Vilanova

*From the Airport: Take the RENFE railway towards Barcelona SANTS, at EL PRAT change trains and take the southward train Line C2 towards Vilanova

*From Highway A7: Exit at Vilafranca del Penedes towards Vilanova i la Geltru- Sitges

*From Highway C-32 (or C-31) Exit at the first Vilanova I la Geltru Exit, follow the 1st roundabout towards the Beach (to go to Moli de Mar) o to the RENFE station (to go to the UPC Residence and to Can Gatell Hotel).



Accommodation and Information

Student accommodation is available at the RESA residence in the UPC Campus of el Baix Llobregat in Castelldefells. <http://upc.edu>
There are also several hotels near the Campus.

The Workshop party will take place at the MOLI DE MAR
Large House near the Lighthouse, in Vilanova

There are also additional optional rooms available for participants in Vilanova I la Geltru:

Hotel CAN GATELL CAN GATELL INN **. 6-16, Puigcerdá street. Phone (+34) 938 930 117

Residencia UPC: Rambla de l'Exposició 41 Tel: 93 811 59 00 <http://www.qualitat.es/residencia/>

The conference will start Tuesday at 18.00 and end Sunday at noon

There will be an “Ice Breaker” reception at Castelldefells at 20.00 on Tuesday

Coffee/tea breaks will be served between 10.30-11.00 and 17.00 – 17.30

Selected presentations will be published in the ERCOFTAC Bulletin in 2016

Lecturers of the Summer School on Complex Environmental Turbulent Flows

J.J.Martinez-Benjamin	UPC, Barcelona, Spain.	jj.Benjamin@upc.edu
Roberto Castilla	LABSON, UPC, Terrasa, Spain	castilla@mf.upc.edu
Philippe Fraunié	Univ Sud.Toulon-Var, France	Philippe.Fraunie@lseet.univ-tln.fr
Greg King	Univ. Cambridge, U.K. / USA	gregk@damtp.cam.ac.uk
Luca Sorriso-Valvo	Univ. Calabria, CNR Italy	luca.sorriso@gits.upc
Yuli Chashechkin	I. P. M. RAS, Moscow	chakin@ipm.ras.ru
Tomas Bodnar	CTU, Prague, Czech Rep.	Bodnar@marian.fsik.cvut.cz
Pablo Huq	Univ. Delaware, USA	pablo.huq@udel.edu
Margarita Diez	Ports. Generalitat, Vilanova i la Geltru	marga@gencat.com