

ERCOFTAC SIG 4

The ERCOFTAC *Special Interest Group 4 on Turbulence in Compressible Flows* organizing it, has co-organized the following events :

- *Symposium of Sound Source Mechanisms in Turbulent Shear Flows*, Poitiers, France, July 07-09, 2008
- *Summer School on Turbulence and mixing in Compressible flows II*, IUSTI, Marseille, 7-12 July 2008
- 26th International Symposium on Shock Waves Göttingen, Germany, 15-20 July 2007
- *Summer School on Small-scale turbulence : Theory, Phenomenology and Applications Cargèse, Corsica (France)*, 13-25, August 2007
- *Summer School on Turbulence and Mixing*, University of Jaen, Spain, 20-23 June 2007
- European Geosciences Union, General Assembly 2007 Session : Astrophysical Turbulence and Shocks, Plasmas and High Mach Number Flows, Vienna, Austria, 15-20 April 2007
- *Summer School on Turbulence and mixing in Compressible flows I*, Strasbourg Observatory, 7-11 July 2005
- *International Summerschool on variable-density turbulent flows*, UCP, Barcelona, September 1-5, 2003.
- Euromech 440, *Aerodynamics and Thermochemistry of high speed flows*, Marseille, September 2002
- *International meeting on New approaches in numerical simulation and control of turbulence*, Strasbourg, 2-3 April 2001

SIG4 Steering Committee :

- P. Comte (coordinator), Institut P', Poitiers, France
- J.P. Bonnet, Institut P', Poitiers, France
- C. Cambon, Ecole Centrale de Lyon, France
- J.C. Courty, Dassault Aviation, France
- J.P. Dussauge, Université d'Aix-Marseille, France
- R. Friedrich, Technical University of Munich, Germany
- S. Gauthier, CEA/DAM, France
- J.F. Haas, CEA/DAM, France
- L. Jacquin, ONERA/DAFE, France
- M. Leschziner, Imperial College of Science, UK
- J.M. Redondo, Polytechnic University of Catalonia, Spain

Information and registration

Detailed information and timetable will be updated on <http://tmcf3.cnrs.pprime.fr>

also accessible from the SIG4 or PC France West pages on the ERCOFTAC site <http://www.ercoftac.org>

Pre-registration and registration have to be performed online via <http://colloque.dr20.cnrs.fr/>

The number of places is limited, and registration will be performed on a "first come first served" basis.

Registration fees :

Full rate (single room)	€ 600
Reduced rate (twin room)	€ 450

These fees include access to lectures, printed material, coffee breaks and full board (12 meals, 6 nights) at *La Vieille Perrotine*, together with bus transportation from and to La Rochelle (arrival before supper on Sunday August 29 and departure on Saturday September 4, after lunch).

The reduced rate applies to graduate and PhD students, post doc, and members of ERCOFTAC institutions.

Registration deadline : July, 2, 2010

Registration is free of charge for the first 7 CNRS employees to pre-register.

If you want to bring kids or accompanying persons, please e-mail before final registration.

Proof of student status and/or ERCOFTAC membership of your institution should be provided to benefit from the reduced rate.

If the budget permits, a limited number of scholarships covering the reduced-rate registration fees will be available for students from ERCOFTAC-affiliated labs in hardship (also send CV + recommendation letter).

Methods of payment :

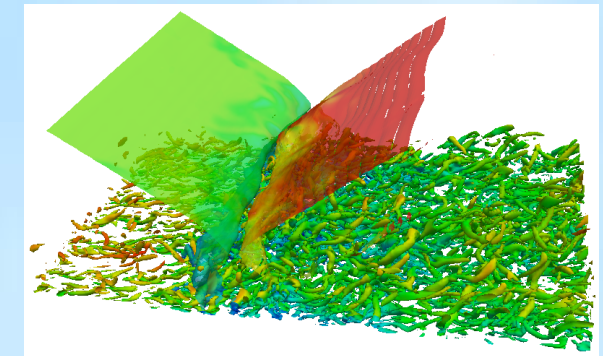
The registration and accommodation fees can be paid either online by credit card or, for French participants, by purchase order.



CNRS Thematic School ERCOFTAC SIG4 Summer School

Turbulence and Mixing in Compressible flows III

First announcement



Shock-Wave Boundary Layer Interaction in DNS ©G. Lehmasch, P'

CAES La Vieille Perrotine
F-17310 Saint-Pierre d'Oléron, France
Aug. 30 - Sept. 4, 2010



AFM GST 13 :
Mécanique des
Fluides et
Turbulence

Scope

This summer school, following the first two issues held at Université Louis Pasteur, Strasbourg in 2005 and Université de Provence, Marseille in 2008, aims at offering an up-to-date introduction to different aspects of turbulence and mixing in compressible flows as encountered in a wide range of situations and disciplines, including aerodynamics, aerodynamics, combustion and astrophysics. The lectures and courses cover theoretical, experimental and numerical aspects. It is expected that the diversity of the themes addressed will be intellectually stimulating and will boost fruitful cross-fertilization.

This summer school will combine extended introduction courses and shorter invited presentations. Each student will be invited to give a seminar on his/her ongoing work and the programme will be scheduled so that enough time will be allocated, not only for interaction between lecturers and students, but also for cross fertilization between disciplines. Hopefully some new ideas will emerge.

Lectures

- A.J. Smits** (Princeton University)
 - Structure of supersonic turbulent boundary layers and the effects of strong distortions
 - Hypersonic turbulent boundary layers and the need for basic experiments
- J.P. Dussauge** (IUSTI Marseille)
 - Basic concepts in compressible turbulence ; Kovasz- nay modes
 - Boundary layers and Strong Reynolds Analogies
 - Compressible mixing layers
 - Shock/boundary layer interactions : experimental aspects.
- B. Aupoix** (ONERA Toulouse)
 - one-point closures for compressible flows
- T.B. Gatski** (Intitut P, Poitiers & Old Dominion University, Norfolk)
 - Recent developments in the modeling of compressible turbulence
- J.P. Bonnet** (Institut P, Poitiers)
 - Shock and turbulence interactions in homogeneous and inhomogeneous free shear flows

J. Sesterhenn

- (TU Berlin)
 - high-order schemes for DNS and LES of compressible flows
 - aeracoustic noise ; jet noise
- P. Jordan** (Institut P, Poitiers)
 - Sound source mechanisms in high speed jets
- C. Cambon** (LMFA Lyon)
 - Spectral approaches to compressible turbulence ; linear and weakly nonlinear theory and modelling.
- J.M. Redondo** (Univ. Politcnica de Catalunya, Barcelona)
 - Mixing efficiency in shock induced instabilities
 - Multifractal and structure function high order analysis in compressible flows
- D. Veynante** (EM2C, Ecole Centrale de Paris)
 - Introduction to combustion phenomena
 - Turbulent combustion and its modelling
- A. Mura** (Institut P Poitiers)
 - Supersonic mixing and combustion
- D. Gilliet** (Obs. Astronomique Marseille Provence)
 - Hypersonic Shock Waves and Turbulence from the Earth To Stellar Atmospheres



Location and venue



The lectures will be held on Oléron Island, CNRS vacation center "La Vieille Perrotine" (45.953575,-1.249659). Nearest airport and railway station *La Rochelle*

A special bus will be available near La Rochelle station (TG), on Sunday Aug. 29th, departure about 4pm (depending on the arrival of the participants). Return on Saturday September 4th, about 4.30 pm.

The nearest village is 1.5kms away from "La Vieille Perrotine", from which push bikes are available free of charge.

Contacts

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Richmyer-Meshkov instability © M. Boulet, CEA

