August 31

Σ PRAGUE 2012

August 27

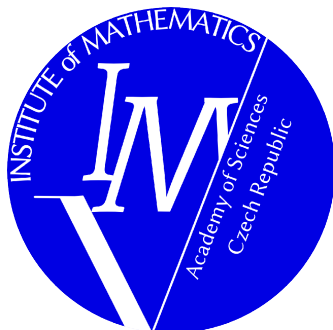# NON–HOMOGENEOUS FLUIDS AND FLOWS

Summer School and Workshop

The aim of the summer school is to present a comprehensive series of lectures on various aspects of non-homogeneous fluids and flows. The emphasize will be on mathematical, computational and experimental topics originating in environmental applications. The summer course is prepared for graduate students, young scientists, and other interested specialists. Besides of the course lectures, the program will include a one day workshop (on Wednesday, August 29) dedicated to short, more advanced lectures given by attending scientists.

INVITED LECTURERS:

Vincenzo Armenio - *University of Trieste, Italy*
Chantal Staquet - *University Joseph Fourier, Grenoble, France*
Vladimir Zeitlin - *Ecole Normale Supérieure, Paris, France*
Eleuterio F. Toro - *University of Trento, Italy*
Eduard Feireisl - *Institute of Mathematics AS CR, Prague, Czech Republic*
Antonín Novotný - *Université du Sud, Toulon, France*
Dmitri Kuzmin - *University of Erlangen-Nuremberg, Germany*
Yuli D. Chaschechkin - *Russian Academy of Sciences, Moscow, Russia*
Philippe Fraunié - *Mediterranean Institute of Oceanography, Toulon, France*
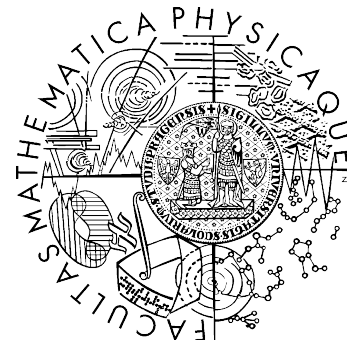
MAIN TOPICS:

Variable density flows

Stratified and rotating flows

Gravity waves in ocean and atmosphere

Singular limits of the Navier-Stokes-Fourier system

Free-surface and shallow-water flows
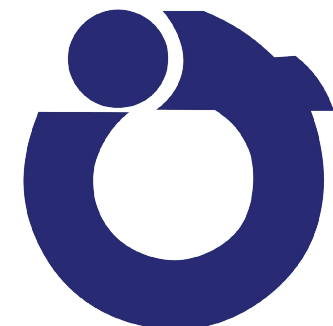
Advanced numerical methods

**Institute of Mathematics
Academy of Sciences of the Czech Republic**

**Faculty of Mechanical Engineering
Czech Technical University in Prague**

**Faculty of Mathematics and Physics
Charles University in Prague**

**Institute of Thermomechanics
Academy of Sciences of the Czech Republic**

WWW: http://www.it.cas.cz/prague_sum_2012   *E-mail:* Tomas.Bodnar@fs.cvut.cz   *or*   matus@math.cas.cz

Course Location:

The whole course and workshop will be hosted by the *Faculty of Mathematics and Physics of the Charles University in Prague.*

Sokolovská 83
CZ - 186 75 Praha 8
Czech Republic

Registration & Fees:

The participants should register as soon as possible by e-mail at : Tomas.Bodnar@fs.cvut.cz and matus@math.cas.cz.

The registration fee covers course materials and small refreshment during the course breaks. The accommodation and travel expenses are not covered. The participants from Ercoftac member institutions can profit from a special 25% discount.

	Early	Late	Ercoftac
Student fee (whole course & workshop)	240 €	270 €	180 €
Full regular fee (whole course & workshop)	320 €	350 €	240 €
Limited fee (workshop only)	160 €	180 €	120 €

The early registration should be received before July 31, 2012.

The fee should be paid by a bank transfer to the following account:
IBAN: CZ80 0710 0000 0000 6962 3011
SWIFT: CNBACZPP
Bank Name: Ceska narodni banka
Bank Address: Na Prikope 28, 115 03 Praha 1
Account Holder: Matematicky ustav AV CR, v.v.i.
Variable Symbol: (will be sent by e-mail after registration)

For other forms of payment contact the organizers.

Support for Students and Young Scientists:

Few grants will be available for students and young scientists. Please only ask for this support if you can not attend the summer school without it and you have no other funds to use. Depending on the number of applicants the exact amount of support will be announced after the application deadline. The grant will cover at least the registration fee. Those participants who will benefit from the support will be asked to present a poster showing their own scientific work. *A formal application, containing short CV, motivation letter and recommendation letter, should be received by organizers before July 31, 2012.*

For detailed information contact the course organizers:

Šárka Nečasová

Institute of Mathematics

Academy of Sciences of Czech Republic

matus@math.cas.cz

Tomáš Bodnár

Faculty of Mechanical Engineering

Czech Technical University in Prague

Tomas.Bodnar@fs.cvut.cz

Milan Pokorný

Faculty of Mathematics and Physics

Charles University in Prague

pokorny@karlin.mff.cuni.cz