# **ERCOFTAC Spring Festival**

# 5-6<sup>th</sup> May 2008 Stockholm

#### LOCATION AND TIMETABLE OF THE MEETINGS

FOI, Gullfossgatan 6, Kista.

The ERCOFTAC meeting will be held at the FOI; you will find the conference centre on the first floor.

 $\mathbf{5}^{\text{th}}$  May – ERCOFTAC Spring Forum, Jupiter room.

9:00-16:00 "Bridging research between industry, institutes and universities."

6<sup>th</sup> May – ERCOFTAC committee meetings, Mars and Saturnus rooms.

9:00 – 12:00 SPC & IPC meetings held in parallel, with a coffee break at 10:30.

12:00 Buffet lunch.

13:00-16:00 EC meeting, with a coffee break at 15:00.

#### REGISTRATION FEES AND OTHER COSTS

There is **no** registration fee. Furthermore, the FOI has kindly offered to cover the costs of the lunch and coffee breaks over the two days. However, the optional evening dinner on the 5<sup>th</sup> May will cost around 40 Euros plus drinks per person.

# TAXI TELEPHONE NUMBERS

Taxi Stockholm +46 8 150000 Taxi Kurir +46 8 300000

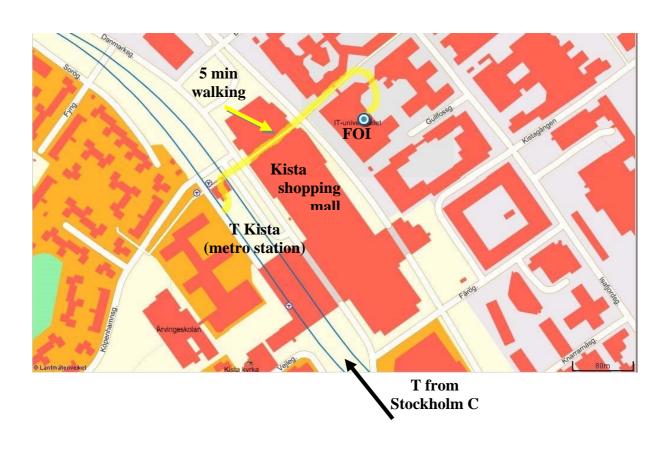
# Travel instructions to Stockholm/Kista

## Metro

- 1. Take the blue underground, line 11 towards AKALLA.
- 2. Get of the train at Kista, approximately 15 minutes travelling time from city. Kista is the first stop above ground.
- 3. Exit the Underground through north exit, forwards in the direction of the train.
- 4. Go down the stairs and turn right.
- 5. Follow the walkway through the shopping mall, over the bridge over Hanstavägen.
- 6. Turn right after the FOI-sign.
- 7. Turn right Again to find FOI main entrance.

## T-centralen – Kista Timetable:

From T-centralen	To Kista
08:13	08:30
08:20	08:37
08:26	08:43
08:32	08:49



# Dinner 19:30 Blå Dörren.

Blå Dörren (green spot) Södermalms Torg 6 Tel: 08-743 07 40

Nice walk through the old town (Gamla Stan) Or T-bana (subway) to Slussen



Menu on the next side...

# Starters

Assortment of pickled Herring
Lightly grilled fillet of Duck
Prawn in mayonnaise on toast
<u>Fish</u>
Grilled fillet of Char
Meat
Grilled Lamb Chops
Grilled Entrecôte
<u>Deserts</u>
Assortment of Chocolat Truffels (dark, light, white) 48:- or one Tryffel
Vanilla Ice Cream
Crème Brulée78:-
Walnut Brownie



# ERCOFTAC Spring Forum on



# **Bridging research between** industry, institutes and universities

Swedish Defence Research Agency (FOI), Stockholm, 5th May 2008

# **Opening**

9:00 Welcome and short intro Nils Olsson, Deputy Division Head, Division of Defence & Security, Systems and Technology, FOI, Sweden

9:15 Opening address on ERCOFTAC

Anthony Hutton, ERCOFTAC Chairman, Airbus UK

# **Industry and Institute Perspectives.**

9:30 Q&T in CFD and the updated multiphase BPG Rene Oliemans, Delft University of Technology, NL.

10:00 Coffee.

10:20 Research institutes bridging research to industry *Christer Fureby & Peter Eliasson, FOI, Sweden.* 

11:00 Enabling technologies in aircraft design *Mattias Sillen, SAAB Aero Systems, Sweden* 

11:30 Competence Provision and Centers of Excellence for Gas Turbine Technology Anders Skyttebol, Volvo Aero Corporation, Sweden.

### 12:00 Buffet lunch.

# **University Perspectives.**

13:00 SIG-15: Turbulence Modelling

Suad Jakirlic. Darmstadt University of Technology, Germany

13:20 SIG-20: Drag Reduction and Flow Control Kwing-So Choi. Nottingham University, UK

13:40 CICERO, an example of the Swedish competence centra model. Henrik Alfredsson, KTH, Sweden.

14:10 tbd Olle Bodin, KTH, Sweden

14:30 Coffee.

15:00 Panel discussion.

16:00 Close.

# **AGENDA**

# SCIENTIFIC PROGRAMME COMMITTEE MEETING

# 6<sup>th</sup> May 2008 Stockholm

09:00	SPC meeting, chaired by Prof. Leschziner
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## Coffee break around 10:30

- 1. Approval of agenda
- 2. Minutes of the SPC Meeting held in Brussels on the 31<sup>st</sup> October 2007
- **3.** Special Interest Groups
  - i. Current status report
  - ii. SIG documentation on the website
  - iii. Creation of a new SIG on fiber suspension flows
- **4.** Pilot Centres
  - i. Current status report
  - ii. PC documentation on the website
- **5.** Workshops and summer schools
  - i. Status of reports on previous events
  - ii. New proposals
- **6.** Status report on ETMM7 and ETMM8
- **7.** ERCOFTAC publications
  - i. FTAC journal and the ERCOFTAC book series
  - ii. Changes to the bulletin format and the creation of a newsletter
- **8.** ERCOFTAC webpage
  - i. Proposal to allow SIGs and PCs to update their own sections of the website
- **9.** ERCOFTAC Autumn Festival (including Da Vinci competition)
- **10.** Any other business
- 11. Date of next SPC meeting

# 12:00 End of meeting, lunch break

# **AGENDA**

# INDUSTRIAL PROGRAMME COMMITTEE MEETING

# 6<sup>th</sup> May 2008 Stockholm

09:00	IPC meeting	chaired by Dr.	T An
U9:UU	Tre meeung.	chaired by Dr.	Lea

## Coffee break around 10:30

- 1. Minutes of IAC meeting held in Brussels on the 31<sup>st</sup> October 2007
- **2.** ERCOFTAC industrial strategy
  - i. Introduction to Richard Seoud (Industry Engagement Officer)
  - ii. Implementation draft plan
  - iii. Monitoring & review
- **3.** QNET-CFD knowledge base
  - i. Present status
  - ii. Future plans
- **4.** Best Practice Guidelines (BPG)
  - i. Status of the Dispersed Multi-Phase Flow BPG
  - ii. Status of the Industrial CFD BPG, including 2<sup>nd</sup> edition
  - iii. Sales and income issues
- **5.** Future development of the IPC
- **6.** Any Other Business
  - i. Next IPC meeting

# 12:00 End of meeting, lunch break

# **AGENDA**

# **EXECUTIVE COMMITTEE MEETING**

# 6<sup>th</sup> May 2008 Stockholm

#### 13:00 Executive Committee meeting, chaired by Prof. Hutton

# Coffee break during the meeting approx. 3.00 pm)

- 1. Approval of the agenda
- 2. Minutes of the MB-GA meeting held in Brussels 31<sup>st</sup> October 2007
- 3. Action items from the MB-GA meeting held in Brussels 31st October 2007
- 4. The evolution of ERCOFTAC and its future operation:
- 5. ERCOFTAC Autumn Festival 2008 and the 20<sup>th</sup> Anniversary Celebrations
- 6. Status of ERCOFTAC products and services
  - i. FTAC journal
  - ii. Bulletin
  - iii. Book series
  - iv. Conferences: ETMM7 & 8
  - v. BPG Industrial CFD
  - vi. BPG Multiphase Flow
- vii. Website
- viii. ERCOFTAC data base
- ix. QNET-CFD knowledge base
- 7. Financial report
  - i. Budget 2007 and 2008
- 8. Report from Administration and Development Office
- 9. Report from Coordination Centre
- 10. Report from Scientific Programme Committee
- 11. Report from Industrial Programme Committee
- 12. Any Other Business
  - i. Next MB-GA meeting
  - ii. Next EC meeting

## 16:00 End of meeting

# **Applications for ERCOFTAC event sponsorship**

(To be considered at the SPC meeting in Stockholm 2008)

Summerscho	ool & Courses	Scholarships
S2008-06	Turbulence and mixing in compressible flows II	X
S2008-07	LES and applications in aeroacoustics	X
Workshops &	& Conferences	
S2008-07	European drag reduction and flow control	X
S2008-08	Direct and Large Eddy Simulations 7	X
S2008-09	Multiscale methods for fluid and plasma turbulence	e X
S2008-10	Turbulence Modelling	X
S2008-11	Conference on turbulence and interactions	
S2008-12	Synthetic models in turbulence	X

# **Applications for ERCOFTAC SIG creation**

SIG Fibre suspension flows

# WORKSHOPS/CONFERENCES/SUMMERSCHOOLS/COURSES SUMMARY SHEET

Title	Turbulence and mixing in compressible flows II							
	Add a brief summary	dd a brief summary of the objectives of the activity (or the announcement) on a separate page						
	Workshop	■ Summerscho	ool Co	nference	Course			
Location and Date	IUSTI, Marseil	le, July 7-12, 2008						
Organizer	Name: Jean-Pa	aul Dussauge						
	Address IUSTI, Technopôle de Château-Gombert 5, Rue Enrico Fermi 13453 Marseille Cedex 13							
	Country: Fran	ice						
	<b>Tel.:</b> +33 (0)4 9	<b>Tel.:</b> +33 (0)4 91 10 85 37						
	E-mail							
Pilot Center(s) or SIGs involved	SIG 4 Turbulen	ce in Compressible	Flows and F	rance South P	С			
Co-organizing Associations								
Scholarships	request schola	rships ?	■ Yes	No				
Rules		e document ''Rules n www.ercoftac.or						

# Please return this form + annexes to

ERCOFTAC Coordination Centre EPFL-STI-IE (LMF) CH - 1015 LAUSANNE Switzerland

Fax: +41.21.693.53.07

# To be filled-in by ERCOFTAC

**Number** S2008-06

Date Received	28.11.07			
Discussed SPC & MB	SPC		MB	
Scholarships	Yes, Amount	EURO	No	
Announcement	Bulletin			
Report	Bulletin			

# Turbulence and mixing in compressible flows II Summary of the objectives

The Summerschool « Turbulence and mixing in compressible flows II » is organised for an audience of students, research scientists and engineers working on problems involving significant changes of density. This is of course the case of high speed flows (transonic, supersonic, hypersonic regimes). This happens also when interfaces between different media are subjected to accelerations, when some aspects of combustion are present or in the questions of aeroacoustics. Such problems appear in various domains of application: in aeronautics for problems of external and internal aerodynamics and for aeroacoustics, and more generally when the control of such compressible turbulent flows is investigated; the questions of compressible mixing and some aspects of astrophysical flows require also a detailed knowledge of compressible turbulence.

A quick analysis of the degree courses in the universities reveals that of compressible turbulence is generally not taught in the classical academic education, so that there is a need for specialized teaching on this topic, at a European level. Therefore, the objective of this Summer School is to give a series of specialised lectures for research scientists and engineers, giving information about the classical problems in the field, identifying the hard points and the available solutions.

The main topics which will be explored can be summed up as follows:

- Classical decompositions for compressible turbulence.
- Properties of supersonic boundary layers, Morkovin hypothesis, Reynolds Analogies.
- Properties of supersonic free shear flows.
- RANS modelling for supersonic flows.
- Spectral modelling for compressible flows.
- Shock turbulence interactions and shock-boundary layer interactions.
- Elements of aeroacoustics.
- Simulation of flows with combustion.

# WORKSHOPS/CONFERENCES/SUMMERSCHOOLS/COURSES SUMMARY SHEET

Title	Large-Eddy Simulation and Application in Aeroacoustics LES-AAA					
	Add a brief summary of the objectives of the activity (or the announcement) on a separate page					
	Workshop X Summerschool Conference Course					
Location and Date	Balatonfüred, Hungary. 31 <sup>st</sup> August – 6 <sup>th</sup> September 2008.					
Organizer	Name Prof. Tamas LAJOS, Mata Marton LOHASZ					
	Address Department of Fluid Mechanics, Budapest University of Technology and Economics, Bertalan L. Str. 4-6-1111 Budapest.					
	Country Hungary					
	Tel +36 1463 1560 Fax +36 1463 3464					
	E-mail lohasz@ara.bme.hu, lajos@ara.bme.hu					
Pilot Center(s) or SIGs involved	AHS PC, SIG1 - LES, SIG39 – Aeroacoustics.					
Co-organizing Associations						
Scholarships	request scholarships? X Yes No					
Rules	I have read the document "Rules for holding ERCOFTAC event", which can be found on www.ercoftac.org, ERCOFTAC events: X Yes No					

## Please return this form + annexes to

ERCOFTAC Coordination Centre EPFL-STI-IGM-ERCOFTAC CH - 1015 LAUSANNE Switzerland

# To be filled-in by ERCOFTAC

**Number** S2008-07

Date Received	21.4.2008			
Discussed SPC & MB	SPC		MB	
Scholarships	p Yes, Amount	EURO	p No	
Announcement	Bulletin			
Report	Bulletin			

Fax: +41.21.693.53.07

# Summer School on Large-Eddy Simulation and Application in Aeroacoustics (LES-AAA)

# **Description**

The objective of Summer School is to give introduction, transfer knowledge and disseminate current information on research in the field of **Large-Eddy Simulation (LES)** and methods of **Computational Aero-Acoustics (CAA)** to PhD students and young researchers working in the field of engineering or physics. Beside the separate treatment of these two fields emphasis will be put on showing the connections between them, how LES results can be used as source data for CAA simulations, and in which cases is continuous coupling needed. Because of this approach participants already active in one of these fields will find this Summer School useful in terms of extending their competence in the other field and of opening new paths in their research career. Another important goal of this event is to provide a networking possibility for young scientists in order to develop further opportunities for collaboration.

Lectures will be given by leading European scientists of the topics of academic background and experts of industrial code developer companies invited to present the current and anticipated potential of academic and industrial codes in solving problems in both fields.

## **Organizers**

- Dept. of Fluid Mechanics of Budapest University of Technology and Economics (Member of ERCOFTAC and Austrian, Hungarian and Slovenian (AHS) PC
- Institute of Fluid Dynamics and Thermodynamics, University of Magdeburg "Otto von Guericke"
- Cost Action P20, LES AID
- ERCOFTAC AHS PC
- CFD.HU

#### Lecturers

#### From Academic Institutes:

Prof. Christophe Bailly, Prof. Bendiks Jan Boersma, Prof. Bernard J. Geurts, Prof. Pierre Sagaut, Prof. Dominique Thévenin

#### From Software Developer Companies:

Dr. Stéphane Caro, Dr. Fabrice Mathey, Dr. Christophe Schram (Lectures come from 5 European countries.)

#### PRELIMINARY PROGRAM

	<b>Sunday</b> 31 <sup>st</sup> Aug.	<b>Monday</b> 1 <sup>st</sup> Sept.	Tuesday 2 <sup>nd</sup> Sept.	Wednesday 3 <sup>rd</sup> Sept.	<b>Thursday</b> 4 <sup>th</sup> Sept.	Friday 5 <sup>th</sup> Sept.	Saturday 6 <sup>th</sup> Sept.
8:00-9:40		Introduction to the Summer School (Thévenin)	Numerical Methods (Geurts)	Presentations of the Research Groups	From CFD to CAA: DNC vs hybrid approaches (Bailly)	SGS Noise models and Effect of SGS stress model on sound and application to Jet Noise (Bailly)	CAA using LMS Products (Schram)
10:10-11:50		Generalities (Thévenin), Turbulence Intro (Boersma)	Concept of LES, filtering (Sagaut)	Poster Session	Quality of LES, Validation (Thévenin), Resolution, convergence (Geurts)	Acoustics Analogies (Boersma)	CAA using FFT Products (Caro)
13:20-15:00		Acoustics Intro and Analogies (Schram)	SGS modelling (Geurts)		Schemes & BCs for CAA and CFD (Bailly)	PDE methods	Application Examples
15:30-17:10	Travelling from Budapest to Balatonfüred. During the trip: visiting Békésy Laboratory	Difference between acoustics and turbulence, different scales	Role of Numerical Scheme in LES	Excursion	Practical hints, Post processing (Lohász)	LES and CAA in ANSYS packages (Mathey)	Application Examples
17:20-18:00		Illustrative Exercises	Illustrative Exercises		Illustrative Exercises	Illustrative Exercises	Evaluation of Summer School, final discussion (moderation: Thévenin)

# **Contribution to ERCOFTAC targets**

The topic of the Summer School is a field (Aero-acoustics), where LES is almost unavoidable for accurate prediction. Since such methods are needed by and start to be used in industry and participants will come also from the industry the Summer School contributes also to transport of existing and developing knowledge from academy to industry. Furthermore dissemination of up-to-date knowledge in the fields concerned and networking of research groups and promoting their collaboration is targeted.

The Summer School lasts one week. Reduced fee (12-20% reduction) is charged to those attending from ERCOFTAC member institutions:

	before 14th June	after 14th June
ERCOFTAC academic members	€300	€350
ERCOFTAC industrial members	€400	€450
Other academicians	€340	€390
Other members of industry	€500	€550

The following items of Summer School programme include training: Illustrative exercises and Application examples in total 8 hours.

We apply for scholarship for young scientists from institutions that are member of ERCOFTAC covering the costs of accommodation: in single or double room 7 nights HUF 71260 or 49910 (280 or 195 euro), respectively.

Web site: http://www.ara.bme.hu/les-aaa

18.04.2008.

Prof. Tamás Lajos

# WORKSHOPS/CONFERENCES/SUMMERSCHOOLS/COURSES **SUMMARY SHEET**

Title	European Drag Reduction and Flow Control Meeting 2008  Add a brief summary of the objectives of the activity (or the announcement) on a separate page						
	■ Workshop	Summerschool	■ Conference	Course			
Location and Date	Mariental, Gerr 8-11 September	•					
Organizer	Name Dr. Wolfr	am Hage <sup>1</sup> and Dr. Erik	Wassen				
		Berlin, Institute of Props, Mueller-Breslau-Str.	ulsion Technology, De 8, D-10623 Berlin	epartment of			
	TU Berlin, Institute of Fluid Mechanics and Engineering Acoustics (ISTA), Computational Fluid Dynamics and Aeroacoustics Group, Mueller-Breslau-Str. 8, D-10623 Berlin						
	Country Germany						
	<b>Tel</b> +49 30 3100	06 46/43 <b>Fax</b> +49 30	310006 39				
	E-mail 1: wolfra	E-mail 1: wolfram.hage@dlr.de 2: erik.wassen@cfd.tu-berlin.de					
Pilot Center(s) or SIGs involved	SIG 20: Drag Re	duction and Flow Con	trol				
Co-organizing Associations	None						
Scholarships	request scholars	ships? • Y	es No				
Rules			holding ERCOFTAC RCOFTAC events:				

# Please return this form + annexes to

**ERCOFTAC Coordination Centre EPFL-STI-IGM-ERCOFTAC** CH - 1015 LAUSANNE Switzerland

To be filled-in by ERCOFTAC

**Number** W2008-07

Date Received	29.1.2008			
Discussed SPC & MB	SPC		MB	
Scholarships	Yes, Amount	EURO	No	
Announcement	Bulletin			
Report	Bulletin			

Fax: +41.21.693.53.07

# **European Drag Reduction and Flow Control Meeting**

# **EDRFCM 2008**

8-11 September 2008 Ostritz – St. Marienthal, Germany

The European Drag Reduction and Flow Control Meetings have proven to be a very attractive series of workshops on drag reduction and flow control. They are organized by the ERCOFTAC Special Interest Group SIG20 *Drag Reduction and Flow Control*. Within this SIG, a coordination of experimental, numerical and analytical research into drag reduction and flow control using passive and active techniques is carried out.

#### **Objectives**

- Bring together active researchers working in the field of drag reduction and flow control for an exchange and discussion of most recent results,
- Identify area of drag reduction and flow control devices for industrial applications in the context of technology transfer.
- Encourage collaborations among researchers in Europe for academic research as well as funding purposes.

#### **Topics**

- Riblets, compliant walls, polymer and surfactant additives, wall and flow oscillations, optimal and suboptimal control, local blowing/suction, electro-magnetic control, plasma flow control, etc.
- Two special sessions are planned on "Electro-Magnetic Flow Control" and "Plasma Flow Control".

In addition to traditional topics listed above we also invite papers on emerging topics and innovative drag reduction and flow control techniques through a manipulation of turbulent shear flows. Papers on all aspect of drag reduction studies and investigations of flow control using numerical simulations, theories and experiments will be accepted for presentation.

#### Meeting venue

The workshop will be held at the International Meeting Centre St. Marienthal, on the premises of an 800-year-old Cistercian convent. The meeting site is beautifully located on the banks of the river Neiße, right on the German-Polish border.

#### Registration

The registration fee will be 160 EUR (ERCOFTAC members: 140 EUR), which includes the Book of Abstracts, an excursion to nearby historic sites and a conference dinner. Limited funding is available for students to cover part of the travel expenses and the registration fee.

#### **Contact information**

Coordinator of SIG20 Drag Reduction and Flow Control and main organizer:

Prof. Kwing-So Choi University of Nottingham School of Mechanical, Materials and Manufacturing Engineering Nottingham, United Kingdom Email: kwing-so.choi@nottingham.ac.uk

Phone: +44 0115 951 3792

Local Organizers: Dr. Wolfram Hage

DLR Berlin, Institute of Propulsion Technology

Email: wolfram.hage@dlr.de Phone: +49 30 31000646

Dr. Erik Wassen

TU Berlin, Dept. of Fluid Mech. and Engineering

Acoustics

Email: erik.wassen@cfd.tu-berlin.de

Phone: +49 30 31422849

# WORKSHOPS/CONFERENCES/SUMMERSCHOOLS/COURSES SUMMARY SHEET

Title	Direct and Large Eddy Simulations 7						
	Add a brief summary of the objectives of the activity (or the announcement) on a separate page						
	■ Workshop Summerschool ■ Conference Course						
Location and Date	University of Trieste-JCTP, Italy. 8-10 September 2008.						
Organizer	Name Armenio V., Fröhlich J., Geurts B.J., Métals O. & Sreenivasan K.R.						
	Address Vincenzo ARMENIO, Dipartimento di Ingegneria Civile e Ambientale, University of Trieste, Piazzale Europa 1, 34127 Trieste, Italy.						
	Country Italy						
	Tel +39 040 558 3472 Fax +39 040 572 082						
	E-mail armenio@dica.units.it						
Pilot Center(s) or	SIG 1 : Large eddy simulation						
SIGs involved							
Co-organizing Associations							
Scholarships	request scholarships? ■ Yes 2000 Euros No						
Rules	I have read the document "Rules for holding ERCOFTAC event", which can be found on www.ercoftac.org, ERCOFTAC events: ■ Yes No						

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Switzerland

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# To be filled-in by ERCOFTAC

**Number** W2008-08

Date Received	11.2.2008			
Discussed SPC & MB	SPC		MB	
Scholarships	Yes, Amount	EURO	No	
Announcement	Bulletin			
Report	Bulletin			

# **Direct and Large-Eddy Simulations 7 (DLES7)**

# University of Trieste, International Centre for Theoretical Physics (ICTP), Trieste-Italy

## **September 8-10 2008**

After Surrey in 1994, Grenoble in 1996, Cambridge in 1999, Enschede in 2001, Munich in 2003 and Poiters in 2005, the 7th Workshop, DLES7, will be held in Trieste, again, under the auspices of ERCOFTAC. Following the spirit of the series, the goal of this latest workshop is to establish a state-of-the-art of DNS and LES techniques for the computation and modeling of transitional/turbulent flows covering a broad scope of topics such as aerodynamics, acoustics, combustion, multiphase flows, environment, geophysics and biomedical applications. This gathering of specialists in the field should once again be a unique opportunity for discussions about the more recent advances in the prediction, understanding and control of turbulent flows in academic or industrial situations.

#### **Organizing Committee:**

Vincenzo Armenio (University of Trieste, Italy)
Jochen Fröhlich (Technical University of Dresden, Germany)
Bernard J. Geurts (University of Twente, The Netherlands)
Olivier Métais (ENSHMG, Grenoble, France)
Katepalli R. Sreenivasan (ICTP, Trieste, Italy)

#### **Invited speakers**:

Said E. Elghobashi (University of California Irvine, USA) - DNS of particle laden flows Peter Flohr (ALSTOM Ltd., Switzerland) - LES for industrial applications Rainer Friedrich (Technische Universitat Munchen, Germany) - DNS of compressible flows Tomas J.R. Hughes (The University of Texas at Austin, USA) - Errors and modelling in LES Charles Meneveau (The John Hopkins University, USA) - LES in environmental flows Gianni Pedrizzetti (University of Trieste, Italy) - DNS of bio-medical fluid mechanics Ugo Piomelli (University of Maryland College Park, USA) - LES of complex flows Stephen B. Pope (Cornell University, USA) - DNS/LES of reacting flows Roberto Verzicco (Politecnico di Bari, Italy) - DNS/LES of active and passive scalars

# **Scientific Committee**

- K. Adams, Technische Universitat Munchen, Germany
- S. Banerjee, University of California Santa Barbara, USA
- D. Carati, Université Libre de Bruxelles, Belgium
- H. Clercx, Technische Universiteit Eindhoven, NL
- L. Davidson, Chalmers University of Technology, Sweden
- T. Frank, ANSYS Germany
- J. Kim, University of California Los Angeles, USA
- J.C.M. Kuerten, Technische Universiteit Eindhoven, NL
- E. Lamballais, University of Poitiers, France
- I. Marry, ONERA, France
- C. Meneveau Johns Hopkins University, USA
- P. Orlandi, University of Rome 'La Sapienza', Italy
- G. Pedrizzetti, University of Trieste, Italy
- U. Piomelli, University of Maryland College Park, MD, USA
- V. Salvetti, University of Pisa, Italy
- N. Sandham, University of Southampton, UK
- S. Sarkar, University of California San Diego, USA

A. Scotti, University of North Carolina, USA
O. Simonin, IMFT, France
P.R. Spalart, Boeing Commercial Airplanes, Seattle, USA
M. Uhlmann, CIEMAT, Spain
F. Toschi, IAC-CNR, Italy

Webpage: http://www.units.it/~dles7/

# WORKSHOPS/CONFERENCES/SUMMERSCHOOLS/COURSES SUMMARY SHEET

Title	Multiscale methods for fluid & plasma turbulence: Applications to magnetically confined plasmas in fusion devices  Add a brief summary of the objectives of the activity (or the announcement) on a separate page						
	■ Workshop Summerschool Conference Course						
Location and Date	CIRM, Luminy (near Marseille, France), April 21—25, 2008						
Organizer	Name Kai Schneider  Address CMI, Université de Provence (Aix-Marseille I)  39, rue Joliot-Curie, 13453 Marseille Cedex						
	<b>Country</b> France <b>Tel 33</b> (0) 4 91 11 85 29 <b>Fax</b> 33 (0) 4 91 11 35 02						
	E-mail kschneid@cmi.univ-mrs.fr						
Pilot Center(s) or SIGs involved	Henri Bénard PC, SIG 35						
Co-organizing Associations	CNRS, CEA, ONR, Université franco-allemande, Ville de Marseille.						
Scholarships	request scholarships? ■Yes No						
Rules	I have read the document "Rules for holding ERCOFTAC event", which can be found on www.ercoftac.org, ERCOFTAC events: ■ Yes No						

# Please return this form + annexes to

ERCOFTAC Coordination Centre EPFL-STI-IE (LMF) CH - 1015 LAUSANNE Switzerland

# To be filled-in by ERCOFTAC

**Number** W2008-09

Date Received	5.3.2008			
Discussed SPC & MB	SPC		MB	
Scholarships	Yes, Amount	EURO	No	
Announcement	Bulletin			
Report	Bulletin			

Fax: +41.21.693.53.07

# Multiscale methods for fluid and plasma turbulence: Applications to magnetically confined plasmas in fusion devices

April 21st to 25th 2008 at the CIRM in Marseille.

The CIRM (Centre International de Rencontres Mathematiques) is a very beautiful place just above the famous Calanques of Marseille, on the Mediterranean sea coast. For more details you can consult the web site:

http://www.cirm.univ-mrs.fr.

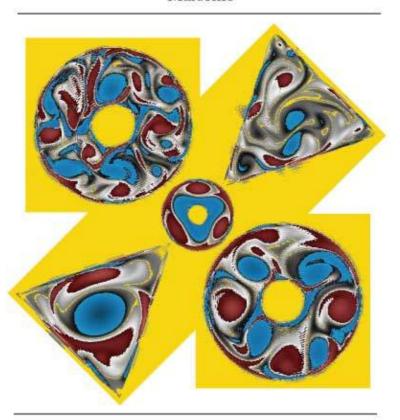
The aim of the meeting is to bring together applied mathematicians working in the field of numerical analysis and scientific computing, plasma phycicists working on magnetically confined plasmas and fluid mechanicians working on fluid turbulence. The state of the art in the field of numerical simulation of plasma and fluid turbulence will be reviewed and new promizing approaches based on multiscale decompositions will be presented. Numerical methods for Navier-Stokes and Maxwell equations will be discussed as well as kinetic models based on Vlasov and Boltzmann equations using particle or hybrid particle methods. The interdisciplinarity of the participants will yield synergetic effects and fruitful discussions between the different communities.

The attendance is limited to 50 people and we would like to invite you to present some of your recent work. Unfortunately, at this stage we are not able to promise financial support to any of the participants.

# International Workshop

# Multiscale Methods for Fluid and Plasma Turbulence : Applications to Magnetically Confined Plasmas in Fusion Devices

April 21st to 25th 2008, Centre International de Rencontres Mathématiques, Marseille



# Confirmed speakers (up to now):

Herman Clercx, Netherlands
Rainer Grauer, Germany
Frank Jenko, Germany
Bob Krasny, USA
Caroline Nore, France
Bob Rubinstein, USA
Eric Sonnendrücker, France
Bryan Taylor, United Kingdom

Pat Diamond, USA
T.S. Hahm, USA
Yukio Kaneda, Japan
David Montgomery, USA
Assad Oberai, USA
Florin Spineanu, Roumania
Edriss Titi, USA
Madalina Vlad, Roumania

Contact: Marie Farge (farge@lmd.ens.fr) or Kai Schneider (kschneid@cmi.univ-mrs.fr)

# WORKSHOPS/CONFERENCES/SUMMERSCHOOLS/COURSES **SUMMARY SHEET**

Title	13th ERCOFTAC (SIG15) Workshop on Turbulence Modelling  Add a brief summary of the objectives of the activity (or the announcement) on a separate page				
	■ Workshop Summerschool Conference Course				
Location and Date	September 25-26, 2008, Technical University of Graz, Austria				
Organizer	Name: Prof. DrIng. Günter Brenn  Address: Institut für Strömungslehre und Wärmeübertragung, Technische Universität Graz, Inffeldgasse 25/F, A-8010 Graz				
	Country: Austria				
	Tel.: 0043-316-873-7340 and 7341 Fax: 0043-316-873-7356				
	E-mail: brenn@fluidmech.tu-graz.ac.at				
Pilot Center(s) or SIGs involved	SIG15 (also PC Austria-Slovenia-Hungary)				
Co-organizing Associations	IAHR and COST				
Scholarships	request scholarships? ■ Yes No				
Rules	I have read the document "Rules for holding ERCOFTAC event", which can be found on www.ercoftac.org, ERCOFTAC events: ■ Yes No				

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**ERCOFTAC Coordination Centre EPFL-STI-IGM-ERCOFTAC** CH - 1015 LAUSANNE Switzerland

# To be filled-in by ERCOFTAC

W2008-10 Number

Date Received	18.3.2008			
Discussed SPC & MB	SPC		MB	
Scholarships	Yes, Amount	EURO	No	
Announcement	Bulletin			
Report	Bulletin			

Fax: +41.21.693.53.07



S. Jakirlić • TUD, Petersenstr. 30 • D-64287 Darmstadt

Prof. Dr. Michael Leschziner Imperial College London Aeronautics Department Price Consort Rd. London SW7 2AZ, UK Priv.-Doz. Dr.-Ing. habil. Suad Jakirlić Fachgebiet Strömungslehre und Aerodynamik

Fachbereich 16 • Maschinenbau Technische Universität Darmstadt

Petersenstrasse 30 D-64287 Darmstadt Telefon (06151) 16-3554 Telefon (06151) 16-2854 Sekretariat Telefax (06151) 16-4754

E-mail: s.jakirlic@sla.tu-darmstadt.de www.sla.tu-darmstadt.de

Datum 15. April 2008

To Prof. Leschziner, Chairman of the ERCOFTAC Scientific Programme Committee

Subject: Request for subsidy for graduate students participating the 13th ERCOFTAC (SIG15) Workshop on Turbulence Modelling, September 25-26, 2008, Technical University Graz, Austria

Dear Michael,

as you already know, Prof. Brenn from the Institute for Fluid Mechanics and Heat Transfer, Technical University of Graz, Austria, has kindly accepted to organize the 13<sup>th</sup> ERCOFTAC Workshop on Turbulence Modelling, which will be held in September 25-26, 2008. Herewith, on behalf of him and the SIG15 steering committee, I would like to request for subsidy to cover travel and accommodation costs of participating graduate students.

Thank you very much in advance.

abilichad

With best regards

Suad Jakirlić

Enclosures: sheet with workshop objectives and corresponding form

# 13th ERCOFTAC (SIG15) Workshop on Turbulence Modelling September 25-26, 2008, Technical University of Graz, Austria

**Objectives:** Keeping in mind the wide use of CFD technology for solving the problems of industrial relevance, questions about the credibility and reliability of both the numerical methods and mathematical models simulating turbulence can only be tackled by intensive verification and systematic validation. The role of the ERCOFTAC series of workshops on refined turbulence modelling is closely connected to that. The workshops aim at bringing together scientists, researchers, users and developers from industry and from the academic field. A large data-base of simulation results assembled in such a way, as well as their detailed comparison with the reliable reference data obtained experimentally, by means of DNS but also by highly-resolved LES, enable discussion and conclusions about predictive performances of variety of turbulence models in a broad range of well-documented flow configurations. Similar to the previous twelve workshops in Lyon (1991), Manchester (1993), Lisbon (1994), Karlsruhe (1995), Chatou (1996), Delft (1997), Manchester (1998), Helsinki (1999), Darmstadt (2001), Poitiers (2002), Gothenburg (2005) and Berlin (2006) some fundamental phenomena, but also some industrially relevant problems have been chosen as test cases for this workshop. The selection of test cases was made by the steering committee of the ERCOFTAC Special Interesting Group on Turbulence Modelling (SIG15). In addition, two sessions devoted to the "Hybrid RANS/LES methods" with emphasis on their predictive capabilities in different applications will be organized.

<u>Steering committee (SIG15):</u> K. Hanjalic, TU Delft and Universita di Roma "La Sapienza"; S. Jakirlic (coordinator), Technical University Darmstadt; D. Laurence, University of Manchester and EDF, France; B. Launder, University of Manchester; W. Rodi, University of Karlsruhe; M. Leschziner, Imperial College of Science, London; F. Menter, ANSYS Germany; R. Manceau, University of Poitiers; S. Wallin, KTH Stockholm and FOI

<u>Local organizing committee</u>: Prof. Günter Brenn, Prof. Helfried Steiner and the Staff of the Institute for Fluid Mechanics and Heat Transfer, Technical University of Graz, Austria

# WORKSHOPS/CONFERENCES/SUMMERSCHOOLS/COURSES SUMMARY SHEET

Title	Conference on Turbulence and Interactions (TI2009)					
	Add a brief summary of the objectives of the activity (or the announcement) on a separate page  Workshop Summerschool X Conference Course					
Location and Date	Karibea Resort Saint-Luce (La Martinique, French oversea dept.) May 31 – June 5 2009					
Organizer	Name Michel Deville					
	Address EPFL, Lausanne,  Country Switzerland					
	Tel (41 21) 693 53 18 Fax (41 21) 693 36 46					
	E-mail michel.deville@epfl.ch					
Pilot Center(s) or SIGs involved	Centre Henri Bénard PC, Swiss PC, SIG s 4, 12, 14, 35, 39, 42					
Co-organizing Associations	EPFL, DGA, ONERA, UPMC (Paris VI)					
Scholarships	request scholarships? Yes X No					
Rules	I have read the document "Rules for holding ERCOFTAC event", which can be found on www.ercoftac.org, ERCOFTAC events: X Yes No					

# Please return this form + annexes to

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Fax: +41.21.693.53.07

# To be filled-in by ERCOFTAC

**Number** W2008-11

Date Received	18.4.2008		
Discussed SPC & MB	SPC		MB
Scholarships	p Yes, Amount	EURO	p No
Announcement	Bulletin		
Report	Bulletin		

#### Contacts

For general inquiries and registration information please contact ti2009-information@onera.fr

For questions about reviewing please contact ti2009-reviewing@onera.fr

#### Location

The conference will be held at the Karibea Resort Sainte-Luce, located near the small village of Sainte Luce, it is bordered by two natural beaches. The Karibea Sainte Luce Resort is a hotel complex that groups the Amandiers, Amyris and Caribia hotels.

#### Accomodation

The hotel complex has 300 rooms, Junior-suites and suites distributed over several two-storey buildings situated on 4ha of tropical gardens.

All the units are equipped as follows: individually regulated air conditioning, fridge, individual safe (at reception for standard and terrace rooms), direct telephone, television, hair dryer, electric razor power point.

#### Access

#### By air:

25 kilometers from Lamentin/Fort de France international airport, served by a number of different Airlines (http://martinique-guide.info/getting.there/air.travel). Regional companies serve the neighbouring islands of Guadeloupe, Dominica, St Martin, Barbados and Ste Lucie.

#### By sea:

15 kilometers from the marinas of Pointe du Bout and Marin and 30 kilometers from the port in Fort de France.

#### By road:

3 kilometers from the village of Sainte-Luce and 30 kilometers from Fort de France. When you leave Lamentin airport, take the bypass coming from Fort de France towards Sud Caraibes, take the Rivière Salée direction and then Ste Luce. Leave the trunk road by turning right in the direction of Anse Mabouya and turn left at the first crossroads. The hotel complex is 500 meters along this road.

# **2<sup>nd</sup> International Conference** on Turbulence and Interaction

31st May - 5th June, 2009 - Sainte-Luce, Martinique



http://ti2009.onera.fr

# **Call for Papers**

# Organized by:







# Executive Committee

Dr. Marc Terracol, ONERA Dr. Vincent Gleize, ONERA Mrs. Chislaine Denis, ONERA Mrs. Brigitte Commelin, ONERA

# Prof. Michel Deville, EPFL Organizing Committee

Prof. Pierre Sagaut, UPMC Dr. Thiên-Hiêp Lê, ONERA

# Call for papers

format via the conference web site Extended abstracts (3 pages) must be submitted in PDF

# http://ti2009-papers.onera.fr/openconf.php.

# Conference proceedings

March 15, 2009. Design (MMFM) - Springer. Dead line for full papers on Numerical Fluid Mechanics and Multidisciplinary Accepted papers will be published in Notes of

### Registration fees

Registration: 406 € registration fee by 6th February 2009 Each participant is required to register and to pay the

# The registration fees includes

Airport Transfer Welcome cocktail and gala dinner Coffee breaks and lunches for 5 days Proceedings

#### Important dates

- •Acceptance notification on January 15, 2009 format only) due to September 26, 2008 •Extended abstract (3 pages, figures included, pdf
- Registration on February 6, 2009
- •Final paper due to March 15, 2009

Ministry of Defense. http://www.defense.gouv.fr/dga DGA – Délégation Générale pour l'Armement – French

Université Pierre et marie Curie

# Scientific committee

Prof. Vikolaus A. Adams, Technische Universität München,

Dr. Christophe Brun, Université d'Orléans, France Prof. Christophe Bailly, Ecole Centrale de Lyon, France Prof. Vincenzo Armenio, Università di Trieste, Italy Germany

Prof. Lars Davidson, Chalmers University of Technology, Prof. Claude Cambon, Ecole Centrale de Lyon, France

Uəpəms

### Prof. Michel Deville, Ecole Polytechnique Fédérale de Dr. Sébastien Deck, ONERA, France

Lausanne, Switzerland

Prof. Jochen Fröhlich, Technical University of Dresden,

# Dr. Eric Garnier, ONERA, France

Prof. Massimo Germano, Politecnico di Torino, Italy

Dr. Vincent Gleize, ONERA, France

Prof. Thomas J. R. Hughes, The University of Texas at

AUSU , nitsuA

Cermany

Prof. Bernard Knaepen, Université Libre de Bruxelles, Prof. John Kim, University of California, USA

Prof. Hans Kuerten, Technische Universiteit Eindhoven, Relgium

Holland

Dr. Lionel Larchevêque, Université d'Aix-Marseille, France

Prof. Emmanuel Leriche, Université Jean Monnet de Saint-Dr. Thiên-Hiêp Lê, ONERA, France

Etienne, France

"Federico II", Italy Prof. Marcello Manna, Universita' degli Studi di Napoli

Prof. Neil Sandham, University of Southampton, UK Prof. Pierre Sagaut, Université Pierre et Marie Curie, France

Prof. Alberto Scotti, University of North Carolina, USA Prof. Maria Vittoria Salvetti, Università di Pisa, Italy

Prof. Jörn Sesterhenn, Universität der Bundeswehr München,

Dr. Marc Terracol, ONERA, France Cermany

Prof. Luc Vervisch, INSA de Rouen, France Prof. Makoto Tsubokura, Hokkaido University, Japan

# Sponsor

sessions but instead in serial sessions where people had strong anticipated, the workshop was not run on the basis of parallel research in a single spot. As the title "Turbulence and Interactions" gather together many organizations concerned with turbulence May 29 to June 2, 2006. This was a unique event as it allowed to held at the IGeSA Centre on the Porquerolles Island (France) from The first "Turbulence and Interactions" conference (TI2006) was

interactions and sharing. The website of the conference is

into the very different interaction phenomena with turbulence. engineering problems. Contributions will give some deep insight understanding and predicting the physics of complex flows and computing, through their interplay come to achieving progress in that the three pillars of science, namely theory, experiments and the same philosophy, with emphasis in providing strong evidence The TI2009 Conference, the second one of a series, participates to

# Conference Themes

TI2009 Conference

coherent structures, incompressible flows, wall turbulence, DNS) Multiscale Interactions in Fundamental Turbulence (anisotropy,

Compressible Turbulence (compressible flows, shock/ turbulence

interactions, aeroacoustics)

http://www.onera.fr/congres/ti2006/.

droplets, buoyant bubble, free-surface, biological flows) Multifluid/Multiphase Flows (reacting flows, combustion,

temperature, magnetic fields) MHD and Heat Transfer (plasma flows, film cooling, transport

Complex Flows (rotating flows, swirling jet, separated flows,

controlled flows, superfluid)

# Invited Speakers

Prof. Sendin Javier Jimenez, Universidad Politécnica de Madrid, Prof. Laszlo Fuchs, Stockholm & Lund University, Sweden Prof. Carlo Ferruccio Barenghi, Newcastle University, UK

Dr. Chin-Hoh Moeng, National Center for Atmospheric Research

Prof. Jean-François Pinton, Ecole Normale Supérieure de Lyon, (NCAR), USA

Dr. Philippe R. Spalart, Boeing Commercial Airplanes, USA Prof. Alexander J. Smits, Princeton University, USA Prof. Lian Shen, Johns Hopkins University, USA

Prof. Arkady Tsinober, Imperial College London, UK

# WORKSHOPS/CONFERENCES/SUMMERSCHOOLS/COURSES SUMMARY SHEET

Title	3rd Workshop on Synthetic Turbulence Models					
	Add a brief summary of the objectives of the activity (or the announcement) on a separate page					
	X Workshop	Summerscho	ool C	Conference	Course	
Location	The University of	Newcastle, Ro	om 2, Level	4, Herschel Bu	uilding,	
and Date	Mathematics & Start - 4th July 200		stle upon Ty	ne, United Kir	ngdom	
Organizer	Name F. Nicolleau, M. Reeks, A. Baggaley, C. Cambon					
	Address University of Sheffield, Department of Mechanical Engineering, Mappin Street, Sheffield S1 3JD					
	Country UK	Country UK				
	<b>Tel</b> +44 (0)114 222 7867					
	E-mail F.Nicolleau@sheffield.ac.uk					
Pilot Center(s) or	SIG 42, SIG 35, I	Henri Bénard pi	lot Centre, U	K PC		
SIGs involved						
Co-organizing Associations						
Scholarships	request scholars	hips ?	X Yes	No		
Rules	I have read the document "Rules for holding ERCOFTAC event", which can be found on www.ercoftac.org, ERCOFTAC events: X Yes No					

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Switzerland

Fax: +41.21.693.53.07

# To be filled-in by ERCOFTAC

**Number** | W2008-12

Date Received	25.4.2008			
Discussed SPC & MB	SPC		MB	
Scholarships	p Yes, Amount	EURO	p No	
Announcement	Bulletin			
Report	Bulletin			

# ERCOFTAC/SIG 42

# $3^{rd}$ Workshop on Synthetic Turbulence Models $3^{rd} - 4^{th}$ July 2008, Newcastle upon Tyne

This workshop will be the third on Synthetic turbulence, the first to use the newly approved label ERCOFTAC/SIG 42. It is open to anyone interested in "synthetic turbulence" including the so-called Kinematic Simulation.

KS is widely used in various domains, including Lagrangian aspects in turbulence mixing/stirring, particle dispersion/clustering, and last but not least, aeroacoustics. Flow realisations with complete spatial, and sometime spatio-temporal, dependency, are generated via superposition of random modes (mostly spatial, and sometime spatial and temporal, Fourier modes), with prescribed constraints such as: strict incompressibility (divergence-free velocity field at each point), high Reynolds energy spectrum, ... Recent improvements consisted in incorporating linear dynamics, for instance in rotating and/or stably-stratified flows, with possible easy generalisation to MHD flows, and perhaps to plasmas. On the other hand, the absence of "sweeping effects" in present conventional KS versions is identified as a major drawback in very different applications: inertial particle clustering (Vassilicos et al.) as well as in aeroacoustics. Nevertheless, this issue was addressed in some basic papers (Fung et al.), and merits to be revisited in the light of new studies in progress.

A non-exhaustive list of topics to be discussed at the workshop:

- improvement of the modelling of small scales advection by largest scales (sweeping),
- introduction of strongly anisotropic energy spectra with better randomization of the wavevector.
- analogy with initialisation of DNS/LES and with "Particle Representation Models" (Kassinos et al.),
- use of specific modes consistent with geometric constraints, e.g. solid walls, instead of 3D spatial Fourier modes,
- improvement of KS as a subgrid model for LES : Lagrangian diffusion and aeroacoustics (Luo et al.)
- competition between "wavy" (really spatio-temporal, propagating) and "vortical" structures of the velocity field for organizing
- Lagrangian turbulence diffusion, from fluid to plasma turbulence,
- other "synthetic" models, e.g. to afford intermittency, possibly very different from conventional KS.

This workshop is the 3<sup>rd</sup> workshop held by the ERCFOFTAC Special Interest Group on Synthetic Turbulence Models. It follows those held 29th-30th May 2007 at the University of Sheffield and 29th-30th November 2007 at the UPC Vilanova i la Geltru. Reports on these workshops can be found in issues 75 and 77 of the ERCOFTAC bulletin.

#### **Audience**

This workshop will be the third on Synthetic turbulence, the first to use the newly approved label ERCOFTAC/SIG 42. It is open to anyone interested in "synthetic turbulence" including the so-called Kinematic Simulation, (KS hereinafter).

#### **Confirmed talks**

#### J.-R. Angilella, Nancy-Universités, LAEGO, France

Chaotic particle settling in elementary flow structures

# A. Baggaley, University of Newcastle, Mathematics & Statistics, UK

TBA

#### C. Cambon, ECL, Lyon, France

KS for highly anisotropic homogeneous turbulent flows

#### R. Castilla, UPC, Terrasa, Spain

TBA

### B. Favier, ECL, Lyon, France

Progress in aeroacoustics, using both DNS and (improved) KS.

#### A. Khan, University of Glasgow, Physics, UK

KS subgrid for LES langrangian modelling

# M. Reeks, University of Newcastle, School of Mechanical Systems Engineering, UK

# Stavros Kassinos & Evangelos Akylas, Cyprus

TBA

#### F.C.G.A. Nicolleau University of Sheffield, Mechanical Engineering, UK

KS prediction of Richardson regime

#### A. F. Nowakowski University of Sheffield, Mechanical Engineering, UK

A compressible multiphase flows model with interfaces

### J.M. Redondo, UPC, Barcelona, Spain

TBA

# **Confirmed participants**

E. Akylas Dept. Mechanical & Manufacturing Engineering, University of Cyprus, Cyprus

J.-R. Angilella Nancy-Universités, LAEGO, France

A. Baggaley University of Newcastle, Mathematics & Statistics, UK

C. Cambon Ecole Centrale de Lyon, LMFA, France

S.Kassinos, Dept. Mechanical & Manufacturing Engineering, University of Cyprus, Cyprus

A. Khan University of Glasgow, Physics, UK

F.C.G.A. Nicolleau University of Sheffield, Mechanical Engineering, UK A. F. Nowakowski University of Sheffield, Mechanical Engineering, UK

J.-M. Redondo UPC, Barcelona, Spain

M. Reeks University of Newcastle, School of Mechanical Systems Engineering, UK

O. Ross University of Essex, Biological Sciences, UK J. C. Vassilicos Imperial College, London, Aeronautics, UK

H. Zheng University of Sheffield, Mechanical Engineering, UK

# Preliminary programme

# THURSDAY 3<sup>rd</sup> JULY 2008

## Morning

C. Cambon

Report on Ercoftac and SIG42 activities

Talks

J.-R. Angilella

#### Afternoon

Talk

Open discussion

# FRIDAY 4<sup>th</sup> JULY 2008

# Morning

Talks

Update on possibility of grant applications

#### Afternoon

Talk

J.-M. Redondo

Regular publication of the different contributions

# **Practical information**

The conference will take place at:

The University of Newcastle Room 2, Level 4 Herschel Building Mathematics & Statistics Newcastle upon Tyne UK

## **Organizers**

Co-organizer (local): Prof. M. Reeks

Mike.Reeks@newcastle.ac.uk

+44 (0)191 222 3570

+44 (0)191 222 5236

School of Mechanical& Systems Engineering
Stephenson Building
Claremont Rd
University of Newcastle upon Tyne
Newcastle upon Tyne, NE1 7RU
UK

Co-organizer (local): Andrew Baggaley A.W.Baggaley@newcastle.ac.uk
School of Mathematics & Statistics
Herschel Building
Newcastle University, Newcastle upon Tyne
NE1 7RU, United Kingdom.

Co-organizer: Dr C. Cambon mailto:Claude.Cambon@ec-lyon.fr
Ecole Centrale de Lyon, LMFA,
36 avenue Guy de Collongue - BP 163,
69131, Ecully CEDEX, France

Co-organizer: Dr F. Nicolleau
F.Nicolleau@sheffield.ac.uk
+44 (0)114 222 7867
University of Sheffield
Department of Mechanical Engineering
Mappin Street
Sheffield S1 3JD, United Kingdom

Co-organizer: Pr J. C. Vassilicos
<u>j.c.vassilicos@ic.ac.uk</u>
Imperial College of Science, London, Department of Aeronautics,
Prince Consort Road, South Kensington,
London SW7 2BY, United Kingdom

# To ERCOFTAC Managing board

Proposal to create the Special Interest Group (SIG) for Fibre suspension flows

# Results of the initiative letter to the pilot centres

A letter describing the initiative to create SIG for *Fibre Suspension Flows* was sent to ERCOFTAC Pilot Centres on November 21, 2007. The following persons were interested to join the SIG organizing committee:

- Darek Asendrych, Czestochowa University of Technology, Poland
- Bendiks Jan Boersma, Delft University of Technology, The Netherlands
- Thanasis D. Papathanasiou, University of Thessaly, Greece
- (Salaheddine Skali-Lami, University of Nancy, France (ERCOFTAC member?))
- Roland Zelm, Technische Universität Dresden, Germany

in addition to person from the Nordic Pilot Centre:

- Jari Hämäläinen, University of Kuopio, Finland
- Hannu Eloranta, Tampere University of Technology, Finland
- Fredrik Lundell, Royal Institute of Technology (KTH), Sweden
- Janne Poranen, VTT (Technical Research Centre of Finland), Finland
- Industry: Tomas Wikström, Metso Paper, Inc., Sweden

It appeared that fibre suspension flows can be found in many industrial applications, not only in pulp and paper industry. Thus, the SIG would serve us as European forum to share experiences of fibre suspension flow research in various applications.

### Action plan

- 1. Organize an annual meeting (workshop, symposium) on fibre suspension flows, including both CFD and experiments.
- 2. Organize special sessions or mini-symposia in international conferences: Planning of the first international symposium has been started and the University of Kuopio will organize the "Papermaking Research Symposium" in 2009.
- 3. Promoting ERCOFTAC membership to new institutes and companies interested in fibre suspension flows, and more generally on flow, turbulence and combustion.
- 4. Transfer of knowledge and experience in fibre suspension flows to industry.
- 5. First map out and then bring together research from different application areas and establish fundamental framework for experimental and numerical studies of fibre suspension flows.
- 6. Develop Best practical guidelines for fibre suspension flow (an extension of the Best practical guidelines for multi-phase flows).

Jari Hämäläinen Professor Department of physics, University of Kuopio P.O.Box 1627, FI-70211 Kuopio, Finland E-mail: jari.hamalainen@uku.fi Home page: http://venda.uku.fi/~jpihamal/