Registration to the Symposium

Please note that registration should be made only through the official Symposium web site:

http://www.hrlm-symposium.org

The Symposium registration fee will include all costs for coffee breaks, lunch, cocktails and a dinner during the symposium. In addition, a "social event" is planned, which will be announced on the Web site mentioned above.

Moreover, the registration fee covers all material needed for the conference as well as the book proceedings to appear in the Springer Series on "Numerical Notes in Fluid Mechanics and Multidisciplinary Optimisation (NNFM)".

With the ardent support of our sponsors, the organising committee offers a considerable reduction of the Symposium fee for university students.

The following registration fees apply:

625 $	Participants and contributors
625 $	Software vendors – including stands
325 $	Students

During the symposium, an **Exhibition of Commercial CFD Software** is planned. Thus, commercial CFD software vendors are welcome to demonstrate their product at the Symposium venue.

For further details, please contact the Symposium Chairmen via e-mail:

Prof. Sharath Girimaji (girimaji@tamu.edu),

Prof. Shia-Hui Peng (peng@foi.se)

Dr. Dieter Schwamborn (dieter.schwamborn@dlr.de)

Dr. Werner Haase (whac@haa.se)

After its 1st event, held in Stockholm, the symposium has taken place subsequently in Corfu, Gdansk and most recently in Beijing. For its traditional collaboration with EU projects, DESider (2004-2007, contact: W. Haase, whac@haa.se), ATAAC (2009-2012, contact: D. Schwamborn, dieter.schwamborn@dlr.de), and Go4Hybrid (2013-2015, contact: F. Thiele, frank.thiele@cfd-berlin.com), the symposium provides additionally an unique platform of dissemination and exploitation of international projects in the field.

The 5th Symposium offers again the opportunity to communicate and exchange knowledge for academic researchers, graduate students, industrial engineers, as well as industrial R&D managers and consultants working in the fields of turbulent-flow modelling, simulations and measurements, and multidisciplinary CFD applications, such as flow control, aero-acoustics, aero-elasticity and any CFD-based multidisciplinary optimisation.

Organising and Scientific Committee

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5th Symposium on Hybrid RANS-LES Methods

19-21 March 2014

Texas A&M University, College Station, Texas 77843, USA

Just scan:

and register at:
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5th Symposium on Hybrid RANS-LES Methods

19-21 March 2014

Texas A&M University, College Station, Texas 77843, USA

Hybrid modelling of turbulent flows, combining RANS and LES techniques, is receiving increasing attention to fill the gap between (U)RANS and LES computations in industrial aerodynamic applications aiming at high Reynolds numbers.

The present Symposium addresses the most recent and new developments on advanced URANS, DES and other hybrid RANS-LES techniques that enable turbulence-resolving simulations, covering both fundamentals of flow physics modelling and applications to industrial flow problems.

The aim of the Fifth Symposium is to continue to provide an open forum for researchers and industrial engineers to exchange knowledge, as well as to discuss and to present recent achievements in development and applications of hybrid RANS-LES methods - including advanced flow-physics models and related numerical issues.

The 5th Symposium encourages to present new emerging ideas that may inspire future developments and applications of hybrid RANS-LES methods towards improved computational accuracy and efficiency in industrial needs.

Main conference topics

- Advanced unsteady RANS modeling
- Improved hybrid RANS-LES methods and other turbulence-resolving modelling approaches
- Wall-modelled LES
- Embedded LES
- LES versus hybrid RANS-LES and/or Unsteady RANS
- Modelling-related numerical issues
- Industrial applications and
- (Commercial) CFD software exhibition

Invited Speakers

Branislav Basara (AVL, Austria):
"PANS method as a computational framework from industrial perspective"

Kemo Hanjalic (Delft University of Technology, The Netherlands & Novosibirsk State University, Russia):
"HLRM Revisited: Progress and Prospects"

Philippe Spalart & Mikhael Strelets (Boeing, USA and NTS, Russia):
"Further comments on the roles of RANS and LES"

Victor Yakhot (BU University, USA):
"Multiscaling, intermittency and accuracy of turbulence models."

Abstracts, Presentations, Papers

- An **Abstract of 1-2 (max) pages** must be submitted.
- **Full Papers** (10 pages): A draft should be submitted prior to or at the conference at latest.
- Following a peer review, **Revised Full Papers** will be published (Springer Series: *"Notes on Numerical Fluid Mechanics and Multidisciplinary Design").*
- **Presentation (incl. discussion): 25 minutes** for session presentations. **50 minutes for Invited Keynote Lectures**.
- **Both abstracts and full papers** must be uploaded to the Web site using theTemplates (downloadable on the website, MS-Word for abstracts and full papers, LaTeX for full paper only).

Dates / Tentative			
31	October	2013	**Abstract(s) deadline**
30	November	2013	Paper acceptance
25	February	2014	**Hotel booking deadline**
19-21	March	2014	Symposium and **deadline for full paper(s)**
4 weeks after paper review			**Revised full paper(s)**

Tentative Programme

18 March 2014

17:00 - 20:00	Early registration / Reception

19 March 2014

08:00 – 09:00	*Registration*
09:00 – 09:10	Welcome – Opening
09:10 – 10:00	Invited keynote I, **Kemo Hanjalic**
10:00 – 10:20	*Coffee*
10:20 – 12:25	Session I (5 contributions – 25 min each)
12:25 – 14:00	*Lunch*
14:00 – 14:50	Invited keynote II: **Philppe Spalart and Mikhael Strelets**
14:50 – 16:05	Session II (3 contributions – 25 min each)
16:05 – 16:25	*Coffee*
16:25 – 18:30	Session III (5 contributions – 25 min each)
20:00	"Social event"

20 March 2014

09:00 – 09:50	Invited keynote III, **Victor Yakhot**
09:50 – 10:40	Session IV (2 contributions – 25 min each)
10:40 – 11:00	*Coffee*
11:00 – 12:15	Session V (3 contributions – 25 min each)
12:15 – 13:50	*Lunch*
13:50 – 14:40	Invited keynote IV, **Branislav Basara**
14:40 – 15:55	Session VI (3 contributions – 25 min each)
15:55 – 16:15	*Coffee*
16:15 – 18:20	Session VII (5 contributions – 25 min each)
20:00	Conference Dinner

21 March 2014

09:00 – 10:40	Session VIII (4 contributions – 25 min each)
10:40 – 11:00	*Coffee*
11:00 – 12:40	Session IX (4 contributions – 25 min each)
12:40 – 13:00	Poster award / Closing remarks

Please note: Sessions I to IX are intended to be split into two parallel sessions each, enabling 68 presentations in total – apart from additional posters.