

Registration to the Symposium

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

<http://www.hrlm-4th.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 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 organizing committee offers a considerable reduction of the Symposium fee for university students.

The following registration fees apply:

Registration Type	On & Before 10 Aug, 2011	After 10 Aug, 2011
Participants and contributors	400 €	450 €
Software vendors (stands included)	400 €	450 €
Students	250 €	250 €
Accompanying Persons	100 €	100 €

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 or the local organizer via e-mails:

Prof. Song Fu (fs-dem@tsinghua.edu.cn)

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

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

Dr. Werner Haase (office@haa.se)

The 1st and 2nd Symposium on Hybrid RANS-LES Methods served the exploitation of the EU project DESider (2004-2007, contact person: W. Haase). The 4th Symposium in Beijing will play an important role in the exploitation of the ongoing EU project ATAAC (2009-2012, contact person: D. Schwamborn).

The present Symposium has its focus on flow physics modelling and its aerodynamic applications, particularly in terms of advanced URANS, improved DES, and hybrid RANS-LES approaches in general.

The Symposium offers 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.

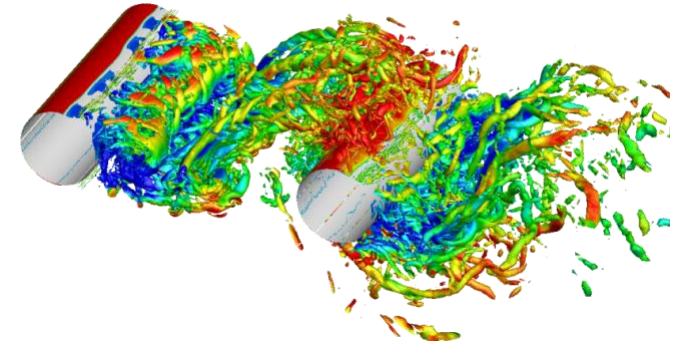
Organising and Scientific Committee

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Fourth Symposium on Hybrid RANS-LES Methods

Beijing, China,
28-30 September 2011

Register at <http://www.hrlm-4th.org>



Co-organised by

Tsinghua University, Beijing, China

Deutsches Zentrum für Luft- und Raumfahrt (DLR)
Germany

Chinese Society of Theoretical and Applied Mechanics
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Fourth Symposium on Hybrid RANS-LES Methods

Beijing, China,
28-30 September, 2011

Hybrid modelling methods of turbulent flows, combining RANS and LES techniques, do receive increasing attention in filling the gap between (U)RANS and LES computations in aerodynamic applications at industrial level aiming at high Reynolds numbers.

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

As with the First Symposium (Stockholm, 2005), the Second (Corfu, 2007), and the Third (Gdansk, 2009), the aim of the Fourth Symposium is to continue with the provision of a forum for researchers and industrial engineers to exchange knowledge and expertise, to discuss and to present recent achievements in development as well as in applications of hybrid RANS-LES methods - including flow-physics models and related numerical issues. Hence, this Symposium encourages to present new emerging ideas and inspires participants to pursue and intensify efforts towards future developments and applications of hybrid RANS-LES methods.

Main Topics

- Advanced URANS modelling
- Improved DES modelling
- Hybrid URANS-LES methods (including embedded LES and other similar modelling approaches)
- Comparative studies of modelling approaches
- Modelling-related numerical issues
- Industrial applications
- Commercial CFD software exhibition

Invited Special Speech

Dietrich Knoerzer (European Commission, Belgium):
“*European Research in Aeronautics within the 7th Framework Programme*”

Invited Speakers

Adel Abbas (Airbus, Spain):

“*Advanced Numerical Simulation - Vision and Strategy*”

Florian Menter (ANSYS Germany, Germany):

“*Global vs Zonal Approaches in Hybrid RANS-LES Turbulence Modelling*”

Kozo Fujii (Japanese Society for Fluid Mechanics, Japan):

“*From RANS/LES Hybrid to Implicit LES - toward Flow Feature Detection*”

Sharath Girimaji (Texas A&M University, USA):

“*Partially Averaged Navier-Stokes (PANS) Method for variable-resolution turbulence simulations: Theory and Practice*”

Abstracts, Presentations, Papers

- An **Abstract of 1-2 (max) pages** must be submitted.
- **Full Papers (10 pages for Distributed, 15 pages for Invited Papers)** have to be submitted prior to or at the conference at the latest.
- Following a peer review, **Revised Full Papers** will be published (Springer Series: “*Notes on Numerical Fluid Mechanics and Multidisciplinary Design*”).
- **For each presentation 25 minutes** are allocated. **Invited Keynote Lectures** will last for **50 minutes**, including (a few minutes) time for discussion.
- **Both abstracts and full papers** must be uploaded to the Symposium Web site – MS-Word templates will be provided (for abstracts and full papers, LaTeX for full paper only) on the conference Web site.

Important Dates

31 May 2011

Submission of abstracts

15 July 2011

Notification on paper acceptance

15 Sept. 2011

Final deadline for full papers

28-30 Sept. 2011

Conference

10 Oct. 2011

Papers sent out for peer review to reviewers

Contributors should note that revised full papers are due 4 weeks after receipt of review.

Tentative Programme

27 September 2011

17:00 - 20:00	Early registration / Reception
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28 September 2011

08:00 – 09:00	Registration
09:00 – 09:10	Welcome – Opening
09:10 – 10:00	Invited keynote I, Adel Abbas
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	Special Lecture: Dietrich Knoerzer ,
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”

29 September 2011

09:00 – 09:50	Invited keynote II, Kozo Fujii
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 III, Florian Menter
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

30 September 2011

09:00 – 09:50	Invited keynote IV, Sharath Girimaji
09:50 – 10:40	Session VIII (2 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
13:00 – ...	“Farewell” Lunch