

## 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 includes 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 support of the Symposium sponsors, the organising committee offers a considerable reduction of the Symposium fee for university students.

### The following registration fees apply:

450 € Participants

450 € Software vendors (stands to be provided) Davidson

250 € Students

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

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

Prof. Shia-Hui Peng ([peng@foi.se](mailto:peng@foi.se))

Prof. Yannick Hoarau ([hoarau@unistra.fr](mailto:hoarau@unistra.fr))

Dr. Dieter Schwamborn ([dieter.schwamborn@dlr.de](mailto:dieter.schwamborn@dlr.de))

Dr. Alistair Revell ([alistair.revell@manchester.ac.uk](mailto:alistair.revell@manchester.ac.uk))

After its 1<sup>st</sup> event, held in Stockholm, the symposium has taken place subsequently in Corfu, Gdansk, Beijing and most recently in Colleague Station (Texas). For its traditional collaboration and interaction with EU projects, the HRLM Symposium provides additionally a unique platform of dissemination and exploitation of international projects in the field.

**The 6<sup>th</sup> 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 modelling of turbulent flow physics, simulations and measurements, and multidisciplinary CFD applications, such as flow control, aero-acoustics, aero-elasticity and CFD-based multidisciplinary optimisation.

### Organising and Scientific Committee

B. Aupoix	ONERA, France
M. Braza	IMFT, France
H. Choi	SNU, Korea
L. Davidson	Chalmers Univ., Sweden
S. Deck	ONERA, France
P. Doerffer	IMP-PAN, Poland
S. Fu	Tsinghua Univ., Beijing, China
K. Fujii	ISAS/JAXA, Japan
T. Gatski	Laboratoire d'Etude Aerodynamiques, CNRS, France
S. Girimaji	A&M Univ., USA
W. Haase	WHAC, Germany
Y. Hoarau	<b>Local Chair</b> , Univ. of Strasbourg, France
Ch. Hirsch	NUMECA, Belgium
S. Jakirlic	TU-Darmstadt, Germany
J. Kok	NLR, the Netherlands
D. Laurence	EDF, France
F. Menter	ANSYS, Germany
S.-H. Peng	<b>Chair</b> , FOI, Sweden
A. Revell	<b>Co-Chair</b> , Uni. Manchester, UK
D. Schwamborn	<b>Co-Chair</b> , DLR, Germany
P. Spalart	Boeing, USA
M. Strelets	NTS, Russia
F. Thiele	CFDB, Germany

# 6<sup>th</sup> Symposium on Hybrid RANS-LES Methods

September 26-28 2016

University of Strasbourg,  
Strasbourg, France

Abstract submission extended to 27 June



Just scan:



and register at:

<http://www.hrlm-symposium.org>

Organised by:

University of Strasbourg



# 6<sup>th</sup> Symposium on Hybrid RANS-LES Methods

September 26-28 2016

Universit of Strasbourg, Strasbourg, France

Hybrid RANS-LES methods have been increasingly used as a powerful engineering modelling approach in computations for complex turbulent flows in industrial aerodynamic applications.

Covering fundamentals of modelling flow physics and applications to industrial flow problems, the Symposium addresses the most recent and new developments on advanced URANS and hybrid RANS-LES methods in general, as well as other novel modelling approaches enabling turbulence-resolving simulations.

The 6<sup>th</sup> Symposium provides an unique open forum for researchers and industrial engineers to exchange knowledge, to discuss new solutions of flow problems, and to present recent achievements in development and applications of hybrid RANS-LES methods - including modelling of flow physics and related numerical issues.

The 6<sup>th</sup> Symposium encourages to present new emerging ideas that may inspire future developments and applications of hybrid RANS-LES methods for improved computational accuracy and efficiency in industrial needs.

## Main conference topics

- Advanced unsteady RANS (URANS) modeling
- Improved hybrid RANS-LES methods and other novel turbulence-resolving modelling approaches
- Embedded LES (ELES)
- Wall-modelled LES (WMLES)
- LES for high-Re-number turbulent flows and/or for industrial applications with complex geometry
- Comparative studies of hybrid RANS-LES and/or other turbulence-resolving simulations
- Modelling-related numerical issues (including high-order numerical schemes)
- Lattice-Boltzman methods and turbulence-resolving applications.
- Industrial applications of hybrid RANS-LES methods
- Commercial CFD software exhibition/demonstration

## Invited Keynote Speakers

Prof. Song Fu, Tsinghua University, China

Dr. Sylvain Lardeau, CD adapco Ltd., UK

Prof. Remi Marceau, CNRS-Univ. of Pau, France

Dr. Florian Menter, ANSYS Inc., Germany

Dr. Philippe Spalart, Boeing Commercial Airplanes, USA

## Abstracts, Presentations, Papers

- An **Abstract of 1-2 (max) pages** must be submitted.
- **Full Papers** (10 pages) a draft should be submitted prior to the conference at latest.
- Following a peer-review, **Revised Full Papers** will be published in 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 Website using the Templates (downloadable on the website, MS-Word for abstracts and full papers, LaTeX for full paper only).

## Important Dates

**27 June 2016:** Deadline for abstract submission

**20 July 2016:** Notification of acceptance

**31 July 2016:** Early bird online registration

**15 August 2016:** Hotel booking deadline

**25 September 2016:** Deadline 1st draft of full paper

## Tentative Programme

### 26 September 2016

08:00 – 09:00	Registration
09:00 – 09:10	Welcome – Opening
09:10 – 10:00	Invited keynote I
10:00 – 10:20	Coffee

10:20 – 12:25	Session I (A&B) (5 + 5 contributions – 25 min each)
12:25 – 14:00	Lunch
14:00 – 14:50	Invited keynote II
14:50 – 16:30	Session II (A&B) (4 + 4 contributions – 25 min each)
16:30 – 16:50	Coffee
16:50 – 18:30	Session III (A&B) (4 + 4 contributions – 25 min each)
<b>20:00</b>	<b>“Social event”</b>

### 27 September 2016

08:30 – 09:20	Invited keynote III
09:20 – 10:50	Session IV (A&B) (4 + 4 contributions – 25 min each)
10:50 – 11:10	Coffee
11:10 – 12:50	Session V (A&B) (4 + 4 contributions – 25 min each)
12:50 – 14:00	Lunch
14:00 – 14:50	Invited keynote IV
14:40 – 16:20	Session VI (A&B) (4 + 4 contributions – 25 min each)
16:20 – 16:40	Coffee
16:40 – 18:20	Session VII (A&B) (4 + 4 contributions – 25 min each)
20:00	Conference Dinner

### 28 September 2016

08:30 – 09:20	Invited keynote V
09:20 – 10:50	Session VIII (A&B) (4 + 4 contributions – 25 min each)
10:50 – 11:10	Coffee
11:10 – 12:50	Session IX (A&B) (4 + 4 contributions – 25 min each)
12:50 – 13:10	Poster award / Closing remarks
13:10	Lunch