Organization and topics of workshop

The workshop will take place at the Hotel Real Palacio (R. Tomás Ribeiro 115, Lisbon) on Saturday and Sunday, July 11-12, 2020 – the days before the begin of the Lisbon laser symposium (http://www.lisbon-lasersymposium.org/lxlaser2020).

Talks are planned on the following areas:

- Data assimilation techniques for flow measurements / PIV / LPT
- Particle tracking in densely seeded flows
- Pressure and loads from PIV / LPT
- Variational techniques using adjoint Navier-Stokes for PIV / LPT
- Machine learning and data driven (modal) analyses

The presentations (~15-minutes) will focus on recent studies, but as well on a larger perspective and showing the relevant work of different research groups related to data-assimilation for PIV and LPT processing. Several presentations are already confirmed. A detailed agenda will follow in May 2020. Do not hesitate to contact us in case you have any questions or require further information.

Challenge on 3D LPT and Data Assimilation

In February 2020 a synthetic test case based on an incompressible turbulent boundary layer flow with a dynamic wall deformation will be provided via a download link to the participants of two challenges:

1) A time-series of synthetic particle images created by four virtual camera views of tracer particles in the TBL flow and random dots at the deforming wall will be provided together with the calibration data in order to challenge the latest LPT code developments.

2) A large number of randomly distributed 3D particle tracks over many time-steps representing the flow and dynamic surface deformations are provided as starting points of a data assimilation challenge.

Both results will be compared with and assessed by physical measures (position, velocity, pressure, etc.) of the full LES input data. The presentation of the challenge results will cover half of the second day of the workshop.

Website

http://cfdforpiv.dlr.de/
Registration
Registration should be done on the workshop website only. All details are given there. The registration is free of charge and includes coffee breaks and one lunch. The workshop is financially supported by ERCOFtAC, LaVision GmbH and the H2020 EU project HOMER.

Dates and deadlines
February 2020, Release of Test Data for 1st Challenge on LPT and DA
Friday, April 3, 2020, Deadline for Two-page-abstract submission
Please send abstracts to catrin.rosenstock@dlr.de
Friday, May 1, 2020, Notification of Acceptance and Deadline for upload of LPT and Data Assimilation challenge results
Friday, June 26, Deadline for Registration (limitation to 60 participants)
Saturday/Sunday, July 11-12, 2020 Workshop

Organizing committee
Prof. Dr. Andreas Schröder
DLR, AS-EXV, Bunsenstr. 10, 37073 Göttingen and BTU Cottbus, Germany
e-mail: Andreas.Schroeder@dlr.de
Dr. Benjamin Leclaire
ONERA, ONERA, DAAA, 92190 Meudon, France
e-mail: Benjamin.Leclaire@onera.fr
Dr. Andrea Sciacchitano
TU Delft, Delft, The Netherlands
e-mail: A.Sciacchitano@tudelft.nl

Secretary
Mrs. Catrin Rosenstock,
DLR, AS, Bunsenstrasse 10, 37073 Göttingen, Germany
Tel: +49 551 709 2468
e-mail: catrin.rosenstock@dlr.de

How to reach the workshop location?
Airplane to Lisbon airport
Metro Linea Vermelha from Lisbon Aeroporto
to Metro Station São Sebastião
Metro Linea Azul at Station Parque
Metro Linea Amarela at Station Picoas

Looking forward to seeing you in Lisbon!!!