

Second Announcement and Call for Papers



International Workshop on Non-Intrusive Optical Flow Diagnostics

25 - 26 October 2016, Delft, The Netherlands



Scope of the Workshop

The objective of the Workshop is to present and discuss the potential of recent advances in Particle Image Velocimetry (PIV) and Particle Tracking Velocimetry (PTV) for the study of unsteady flows. Over the recent years important progress has been achieved in both hardware capabilities and diagnostic procedures, which have made that nowadays accurate and powerful time-resolved three-dimensional flow velocity diagnostic techniques are becoming available.

Simultaneously, algorithms have been developed and refined that allow to extract further fluid properties, the fluid-dynamic static pressure in particular, from the velocity measurement data. This opens up new possibilities for a more dedicated study of flow phenomena in which pressure fluctuations play an important role, such as aeroacoustics and fluid-structure-interaction phenomena.

The direct objective of the Workshop is to address the current status of these developments, by bringing together researchers from a variety of communities, and to stimulate the exchange of ideas from different perspectives.

The Workshop is organized as a dissemination event of the NIOPLEX project (see below), but participation in the workshop is open to everyone. The Workshop will present results that have been obtained in the context of NIOPLEX, but also others working in related areas of research are actively encouraged to contribute to the Workshop programme.

NIOPLEX (www.nioplex.eu).

(Non-Intrusive Pressure and Load Extraction for Aerodynamic Analysis)

NIOPLEX is an FP-7 funded project that aims at assessing, demonstrating and furthering PIV/PTV-based procedures for non-intrusive determination of pressure and fluid-dynamic loads. The NIOPLEX consortium is led by TU Delft and comprises 8 European institutes and one further partner from Canada.

Main topics

Themes related to the application of PIV or other non-intrusive optical flow diagnostic techniques for the study of unsteady flow phenomena, with particular emphasis for the determination of pressure and fluid-dynamic load determination, such as:

- Innovative procedures for deriving pressure and loads from PIV; PIV-CFD coupling; data assimilation
- Capabilities of extended PIV and PTV methods, esp. volumetric, time-resolved, large-scale, etc.
- Accuracy and uncertainty estimation; validation studies; comparative studies
- Application areas, including aeroelasticity, aeroacoustics, flapping wing aerodynamics, biological flight, energy harvesting, etc.

Organization

The workshop will occupy two full days. Contributed presentations by participants both from inside and outside of the NIOPLEX consortium are solicited; indicative duration is 30 min including time for discussion.

The symposium fee is €100 for non-NIOPLEX member participants.

The workshop location is TU Delft and hosted by the Aerospace Engineering Department (www.lr.tudelft.nl/en).

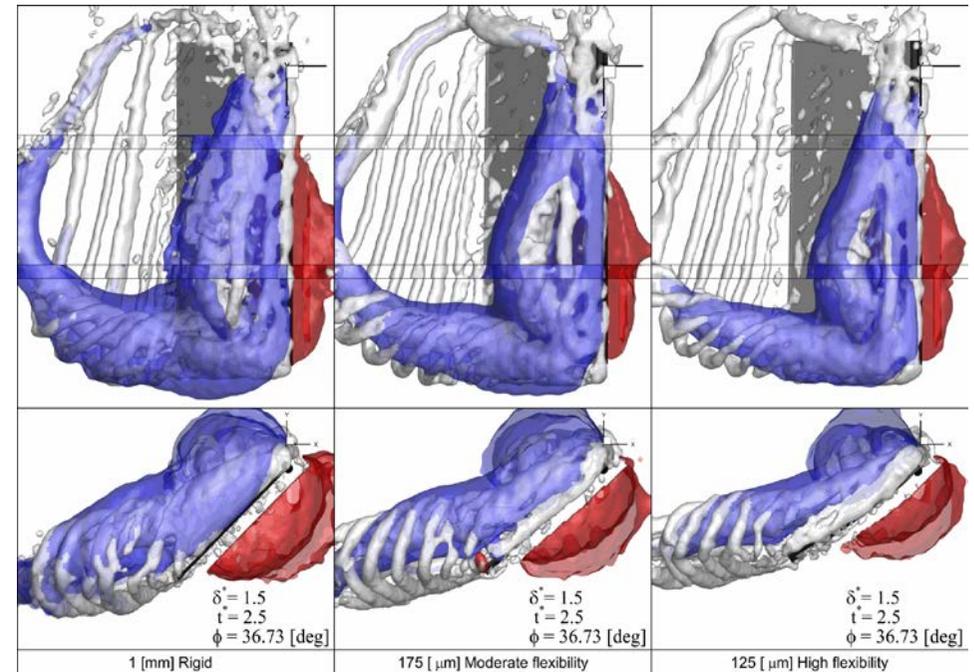
Details on venue, transport and accommodation will be provided on the workshop web site (www.nioplex.eu).

Abstract submission

Authors should send an extended abstract of up to four pages (including supporting figures) in PDF format to the contact address indicated below.

Important dates (note extended deadline)

Deadline for submission of (4-page) abstracts.....15 September 2016
Notification of acceptance.....20 September 2016
Registration within.....1 October 2016



Organizing and program committee

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