

Editorial: PIV'09 special issue

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Experiments in Fluids are pleased to present this special issue arising from the Eighth International Symposium on Particle Image Velocimetry (PIV'09), organized by Monash University and held in the city of Melbourne, Australia. The symposium took place on August 25–28, 2009, and was chaired by Professor Julio Soria. Five invited lectures by experts in PIV and related topics (Prof. Christian Kähler, Prof. Sang-Joon Lee, Prof. Michel Stanislas, Dr. Chris Willert and Prof. Carl Meinhart), and 190 papers were presented during 4 days. The presentations were subdivided into three parallel oral sessions.

This special issue contains 28 selected articles from among those presented at the symposium, pre-selected by those members of the editorial board of Experiments in Fluids who were present at the symposium. All articles were submitted to the normal peer review procedure of the journal. The editors feel that this issue represents a comprehensive overview of the state-of-the-art of particle image velocimetry. In this issue, there is clear evidence of further advancements in development of high-repetition rate PIV and fully volumetric PIV techniques, particularly Tomographic PIV and Holographic PIV. The applications of these PIV techniques ranged from probing the structure

of turbulent boundary layers, aero-acoustics and turbulent flows with chemical reactions to biological and bio-medical flows.

The Eighth International Symposium on Particle Image Velocimetry is part of a successful biennial series, and the next symposium (PIV'11) will be held in Tsukuba, Japan, from July 21 to 23, 2011, hosted by Prof. Koji Okamoto. With this issue, we hope to stimulate readers and authors to continue to publish their work on new developments and novel applications of PIV in Experiments in Fluids. Some of our readers might also enjoy reading a recent special issue on “Laser Diagnostics in Combustion” with Profs. Andreas Dreizler (TU Darmstadt) and Volker Sick (U Michigan) as guest editors. The editors dedicated this special issue to Prof. Jürgen Wolfrum on the occasion of his 70th birthday. We are currently planning future special issues, which will highlight specific conferences and topical areas. These efforts, together with our regular issues of Experiments in Fluids, aim to provide our readership with timely insight into emerging and evolving areas of Fluid Mechanics research.

We would like to thank the authors and referees for adhering to a strict time schedule and a special thanks to the staff at Springer who coordinated the final production of this issue.

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