

Preface

The 5th International Conference on Jets, Wakes and Separated Flows (ICJWSF2015) took place at KTH, Royal Institute of Technology, Stockholm, for 4 days in June 2015 and was chaired by Prof. Laszlo Fuchs (KTH) and co-chaired by Prof. Ephraim J. Gutmark (University of Cincinnati) and Prof. Tomomi Uchiyama (Nagoya University). More than 160 researchers from 23 countries gathered at KTH to present their latest contributions in fluid dynamic research. At the conference, 135 oral talks were given with an intensive schedule of 34 parallel sessions. This volume consists of 75 papers that were selected after a strict external peer review process. The papers cover several fundamental and applied aspects of fluid dynamics, such as vehicle aerodynamics, particle flows, and unsteady aerodynamics, to cite a few.

The conference had a strong international character with researchers from Japan, USA, UK, France, Sweden, etc. New experimental results were presented together with numerical simulations that, boosted by the continuous growth of computational resources in universities and industries, appear now as a central aspect of fluid dynamic research. New theoretical developments and/or re-analysis of existing datasets were also presented covering several aspects of the broad area embraced by the framework jets, wakes, and separated flows. Many questions have remained unsolved, but new evidences have been discussed providing answers or clues to solve them. A conference like ICJWSF2015 represented indeed an important opportunity to share ideas and observations and to establish new collaborations between researchers. Therefore, this volume is a thermometer of fluid dynamic research activity around the world.

The book is structured so that the contributions are arranged according to their main topic, i.e., jets, wakes, separated flows, vehicle aerodynamics, wall-bounded and confined flows, noise, turbomachinery flows, multiphase and reacting flows, vortex dynamics, energy-related flows, and a section dedicated to numerical analyses. It has to be said that this classification is quite coarse as many of the papers can be easily placed in several of these categories. This is particularly true for

complex flow scenarios that differ from the canonical cases described by jets, wakes, and boundary layers, for instance.

At this point, I would like to thank all the authors who have contributed to the present proceedings and the referees who have provided valuable comments to improve the quality of the manuscripts. Professor Laszlo Fuchs is greatly acknowledged for his role in the organization of the conference, while Nora Noll (Meetagain Konferens AB), Malin Landin, and Cecilia Ljunglöf (KTH) should have all the credits for the practical organization of the event, together with Dr. Giovanni Lacagnina for the help in the scrutiny of the proceedings. I would also like to thank Thomas Ditzinger from Springer for the help and guidance during the production of the present book.



A photograph of the participants to the ICJWSF2015 in the KTH courtyard

Stockholm, Sweden

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