

PREFACE

The 8th International Conference on Computational Fluid Dynamics (ICCFD8) was held successfully in Chengdu, China from July 14 to 18, 2014. The ICCFD conference series were the outcome of the merger of two important streams of conferences in Computational Fluid Dynamics: International Conference on Numerical Methods in Fluid Dynamics, ICNMF (since 1969), and International Symposium on Computational Fluid Dynamics, ISCFD (since 1985). In 1998 it was decided to join the two and ICCFD emerged as a biennial meeting. It was held in Kyoto in 2000, Sydney in 2002, Toronto in 2004, Ghent in 2006, Seoul in 2008, St. Petersburg in 2010, Hawaii in 2012 and Chengdu in 2014. Thus, the ICCFD series became one of the leading international conference series for scientists, mathematicians and engineers interested in Computational Fluid Dynamics.

ICCFD8 attracted about 230 participants from all over the world. The final conference program consisted of five invited plenary lectures and five lectures on the history of CFD given by renowned CFD experts, who presented a great deal of valuable information, and 145 oral technical presentations in 32 sessions. The topics covered included high-order schemes, mesh generation and adaption, meshless methods, complex flow mechanism, turbulence modeling, multi-phase flows, high-temperature chemical non-equilibrium flow and combustion, rarefied flows, CFD software development, CFD validation and verification, CFD applications, and so on.

Based on the decision of the ICCFD Executive Board and Scientific Committee, a special issue of Chinese Journal of Aerodynamics (*Acta Aerodynamica Sinica*) was dedicated to publish selected papers from the conference. Through the recommendation of the executive board and the local scientific committee, 13 papers were selected from the Proceedings of ICCFD8 for this Special Issue. The authors were asked to expand their papers and submit them to a review process through the editorial system.

We are grateful to the members of the Executive Board, especially Prof. Mohamed M. Hafez, for their support to this Special Issue. As the invited editor of this Special Issue, Prof. Hafez supplied valuable suggestions and recommended several papers. We also thank the recommended authors for submitting their papers to this Special Issue. We hope that there will be more special issues of ICCFD conference series in the following *Acta Aerodynamica Sinica*.

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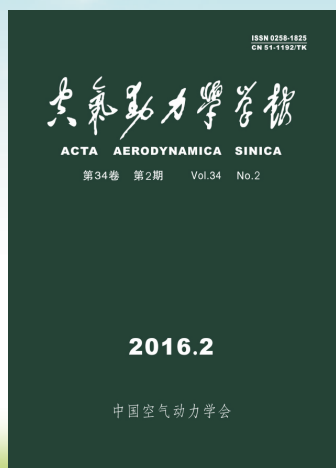


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Acta Aerodynamica Sinica

Aims and Scope

Acta Aerodynamica Sinica, which is sponsored by China Aerodynamics Society, has started its publication in 1980. It is one of the core journal of China, which specializes on the field of aeronautics and astronautics.

Acta Aerodynamica Sinica aims to promote exchange of new knowledge and recent development in aspects of aeronautics and astronautics. Topics of interest include: aerodynamics, fluid mechanics, aeronautics, astronautics, flight mechanics, flight vehicle design, research instrumentation, facilities, and wind engineering, etc.

The journal solicits contributions from scientists, engineers and others who are directly or indirectly involved in the promotion of aeronautics and astronautics in the form of full length paper and research note. It explores analytical, computational and experimental progresses in all the above mentioned areas.

Topics Covered Include

- Basic research of aerodynamics, such as vortex, separation, transition and turbulent flow, etc
- Computational Fluid Dynamics
- Aerodynamic configuration design
- Aerodynamic forces, heat and aerodynamic load analysis
- Wind tunnel device and testing technology
- Sub-scale flight test and measurement
- Gas physical, such as plasma, optical radiation characteristics and electromagnetic scattering characteristics
- Interdisciplinary field, such as aerodynamic noise, aero-optics, aeroelastics, etc
- Wind energy, wind engineering & industrial aerodynamics

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- Abstract Journal (P.Ж., Rus.)
- Cambridge Scientific Abstracts (CSA, U.S.A.)

China:

- Core Journal of Institute of Scientific and Technical Information of China (ISTIC)
- China National Knowledge Infrastructure (CNKI)
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