AIAA JOURNAL
Vol. 47, No. 4, April 2009

Introduction: Advanced Measurement Techniques in Aerospace

DOI: 10.2514/1.43606

ON behalf of the AIAA Aerodynamic Measurement Technology Technical Committee (AMT-TC), we introduce this special section of the AIAA Journal. The AMT-TC was founded in 1990 with the objective of aiding the advancement of measurement techniques for aeroapplications and facilitating the dissemination of knowledge to the wider aerospace community. An important means for disseminating new information has been a special section of the AIAA Journal, which is organized every three years to showcase some of the recent advances in this important field. The collected articles are based on papers presented at the AIAA 46th Aerospace Sciences Meeting held in Reno, Nevada, in January 2008. All papers underwent a thorough review process to guarantee that the published versions conform to the AIAA Journal's archival-quality standards. A common denominator of most of the studies contained herein is the employment of optical diagnostics for simultaneous measurement of multiple flow properties. These studies advance the development and/or application of Rayleigh scattering, molecular tagging methods, laser-induced fluorescence, pressure/temperature-sensitive paint, and rainbow schlieren. Another paper exemplifies a successful effort in the design and implementation of an extensive micro-electromechanical systems array of wall-pressure sensors. We hope that these papers will be helpful in keeping the reader informed about recent developments in aerodynamics measurement technology.

We would like to thank the authors for contributing their papers, the technical reviewers for their timely reviews, and the editorial staff of the AIAA Journal for all of their help. Finally, on behalf of the AMT-TC, we are grateful to the former Editor-in-Chief, Elaine Oran, for making this special section possible.

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Associate Editors