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Preface

This issue contains revised and extended versions of 19 papers selected from 192 that were presented at the 2nd International Symposium on Turbulence and Shear Flow Phenomena (TSFP-2), held in Stockholm during 27–29 June 2001. While technical quality and timeliness were the principal criteria applied to the selection process, an important secondary consideration was the editors' wish to convey the wide ranging topics presented at TSFP-2, held to reflect current focal points of research in turbulence. Thus, papers included cover topics as diverse as bubble–turbulence interaction, turbulence control, cryogenic shear layers and the mixing of fluid injected into arterial flow. Several papers that exemplify the state-of-the-art in traditional mainstream topics have also been selected, among them contributions focusing on LES for complex flows, DNS of transitional flows, non-linear eddy-viscosity modelling for highly curved flows and simulation of particle–turbulence interaction. All papers selected were subjected to a stringent review process, independent from that leading to their initial inclusion in TSFP-2.

The TSFP series, although young, continues a distinguished tradition of 11 symposia on Turbulent Shear Flows (TSF), held biennially between 1977 and 1997. That series was generally regarded as the principal global forum for exposing new ideas and findings in turbulence research, and the TSFP symposia promise to continue in that vein. This is reflected, among others, by the fact that TSFP-2 attracted over 400 contributions from some 30 countries, from which eventually 192 were selected for presentation. This special issue is a fitting archival representative of TSFP-2, and the Journal hopes to continue its association with the TSFP series by publishing similar special issues associated with future meetings.

Finally, the editors wish to express their gratitude to the many members of TSFP-2's Scientific Programme Committee and others who agreed to devote time and effort to reviewing the selected papers, following their earlier input to the selection of the papers presented at the symposium.

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