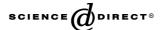
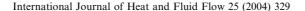


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Preface

This issue contains revised and extended versions of 22 papers selected from 203 that were finally presented at the 3rd International Symposium on Turbulence and Shear Flow Phenomena (TSFP-3), held in Sendai, Japan in the period 25–27 June 2003. While technical quality and timeliness were the principal criteria applied to the selection process, we also wished to capture the breadth of topics presented at TSFP-3. Thus, the selection includes topics as diverse as fundamental turbulence mechanics, turbulence control, roughness and obstacle effects, heat transfer, separated shear layers, multiphase flows with bubbles and particles, modeling and predictive computation, and LES. All papers selected have been subject to a full review process, independent of that leading to their inclusion in the original Symposium proceedings.

Like its predecessor series on Turbulent Shear Flows (held from 1977–1997), the TSFP symposia aim to promote turbulence research, drive the exploitation of turbulence in engineering technologies and cultivate professional contacts and friendships among the international turbulence-research community. The series which began in Santa Barbara, California in 1999 and continued at KTH, Stockholm in 2001, strives to ensure a broad coverage from fundamental research to the most applied with a balance between experimental, computational and analytical research. A particular goal is the inclusion of topics that highlight progress in advancing the design and optimisation of industrial and environmental shear flow phenomena.

For TSFP-3 a new facet was the inclusion of selected priority themes, such as multiphase- and biomedical flows and micro-electromechanical systems (MEMS) technology, which seem somewhat outside the conventional turbulence framework, but merit being especially highlighted.

Due to the outbreak of the SARS epidemic in April 2003 some 35 authors from affected areas accepted the organizers' request that they should not attend. The TSFP-3 Organizing Committee have requested that the public-spirited response of these authors be acknowledged. As Editors we also wish to thank the TSFP-3 Programme Committee members and other referees who have shouldered the task of reviewing the papers included in this special issue in such a timely and thorough manner.

N. Kasagi Chairman of TSFP-3 Organizing Committee B.E. Launder, F.W. Schmidt Editors-in-Chief