
Preface

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Biographical notes: Jan Erik Olsen is currently a research scientist at SINTEF in Trondheim. He holds a Master's Degree in Theoretical Physics and a PhD in Continuum Mechanics from the Norwegian University of Science and Technology. His research interests include modelling of multiphase flows, bubble columns and solidification.

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This special issue of the journal contains 15 selected papers out of 100 contributions that were presented at the 6th International Conference on CFD in the Oil & Gas, Metallurgical and Process Industries (CFD2008), held in Trondheim, Norway in June 2008. The papers selected are among the most recommended papers from the different session at the conference. Thus, this special issue of *Progress in Computational Fluid Dynamics* (PCFD) includes topics as diverse as: ladle refining, aero-acoustics, heat transfer, smooth particle hydrodynamics, population balance methods and dissipative particle dynamics.

The conference was the second held in Trondheim of a series of conferences, which was originally hosted by CSIRO in Melbourne, Australia. The conference was arranged by SINTEF, the Norwegian University of Science and Technology and CSIRO. The aim of the conference was promoting and advancing the application of CFD, which is

currently proving an invaluable tool in the design and optimisation of equipment and processes in most industries, which involve challenging aspects like multiphase flows, combustion, heat and mass transfer, non-Newtonian flows and other multiscale phenomena.

For this archival version, selected authors were invited to resubmit their contributions with the possibility to expand, modify or reply to questions raised at the conference. Some papers are almost unchanged while others are expanded and modified. Even if the papers were reviewed for the conference, each paper has been reviewed a second time by two international experts according to the journals usual procedures. For the authors' cooperation, we extend our sincerest thanks. We also wish to thank all who helped out with the review process and arranging the conference.