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## Editorial

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**Biographical notes:** Mahesh Prakash is a Group Leader in the CSIRO Digital Productivity flagship. He joined CSIRO in 2000 as a Research Scientist. His group focuses on computational fluid and solid dynamics. He has published papers on computational and environmental modelling in a wide range of areas. These include smoothed particle hydrodynamics (SPH), discrete element modelling, turbulence modelling using SPH, fluid-structure interactions, finite volume methods in CFD and shallow water modelling for flooding. He is also currently involved in research into geophysical flows, such as dam collapses, tsunamis and volcanic lava flow.

Petar Liovic is a Research Scientist in Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) Minerals Resources Flagship. He has been in CSIRO for 6.5 years, following academic and visitor appointments at institutions including the Swiss Federal Institute of Technology (ETH-Zurich), the University of Melbourne and Los Alamos National Laboratory. He is engaged in methods development and applications of CFD and FEA in emerging technology areas, with past activities in energy, biomedical and metallurgy. He received his Bachelor degrees in Economics and Chemical Engineering from Monash University, and his PhD degree from the University of Melbourne in the CFD of multi-material flow.

Peter J. Witt is a Research Team Leader for the Fluids Process Modelling team in the CSIRO Mineral Resources Flagship. In 1997, he received his PhD in Mechanical Engineering from Swinburne University. He has applied CFD to areas including fluidised bed systems, aluminium reduction cells, slag granulation, quenching of vapours in supersonic flows and coal combustion. His research interests are in the development of single and multiphase CFD models and their application to solve industrial problems.

Christopher B. Solnordal has been a part of CSIRO's computational modelling team since 1995, and is now one of its most senior members. He works primarily with industry clients to solve a wide variety of industrial problems in the minerals and process industries. His research interests include wear reduction in the oil and gas and minerals industries, fluidisation, emissions reduction, flash smelter reaction modelling, particle flows and agglomeration, heat and mass transfer, and other smelting processes. He is a member of the Australasian Institute of Mining and Metallurgy, TMS, American Chemical Society, and the Society of Petroleum Engineers.

David F. Fletcher has been performing industrial CFD for over 35 years since starting his career at the UK Atomic Energy Authority. Since 1993, he has been associated with The University of Sydney in various capacities and is now an Adjunct Professor. He is self-employed, providing high level CFD expertise to the local ANSYS distributor, LEAP Australia, as well as to many industrial clients. He has a research focus on multiphase and reactive flow modelling, as well as biomedical and pharmaceutical applications, and is the author of over 220 published papers.

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We are pleased to announce this special issue consisting of papers on CFD in the minerals and process industries that is being included in *Progress in Computational Fluid Dynamics*. This special issue consists of five selected papers presented at the 9th International Conference on CFD in the Minerals and Process Industries (CFD 2012), that was held in Melbourne Australia between the 10th and 12th of December 2012. The conference attracted a broad range of international and local experts in CFD and its applications across various industrial and processes. Key topics included in this special issue reflect the breadth and depth of the application of CFD in several areas included biomedical, manufacturing, minerals and energy.

All papers appearing the special issue have been reviewed rigorously through a double stage process. The first stage involved a peer review for the conference version and the second stage involved a critical review to ensure the journal versions are significantly different from the conference and also abide by the strict guidelines imposed by the journal *Progress in Computational Fluid Dynamics (PCFD)*.

The reviewers and editors of the special issue would like to thank all contributing authors to take time and care in preparing the journal versions of the conference papers.