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Parallel Computational Fluid Dynamics 2007

Implementations and Experiences on Large Scale
and Grid Computing

With 333 Figures and 51 Tables



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Preface

Parallel CFD 2007 was held in Antalya, Turkey, from May 21 to 24, 2007. It was the nineteenth in an annual series of international conference meetings focusing on Computational Fluid Dynamics related research performed on parallel computers and attracted over 130 participants from 13 countries.

During the conference, 7 invited papers and 79 contributed papers were presented in three parallel sessions. The host country, Turkey, contributed 19 papers and demonstrated the growing local interest in high performance computing. The topics covered in these sessions ranged from hardware and software aspects of high performance computing to multidisciplinary CFD applications using dedicated PC clusters or GRID computing. The invited papers presented the state-of-the-art CFD research interests of high performance computer centers of Europe, Japan, and the United States. In addition, two short courses on lattice Boltzmann methods and Parallel and Distributed Scientific Computing were organized. Tutorials and hands-on sessions on these short courses attracted large audiences. The related documentation on these sessions is available on the conference web site <http://parcfd.ae.metu.edu.tr>

These proceedings include about 75% of the oral presentations at the conference. All published papers have been peer reviewed. This volume provides the full versions of the invited as well as the contributed papers.

The editors would like to take this opportunity to express their appreciation and thanks to all of the authors for their contribution, the members of the scientific committee for reviewing the papers, and our sponsors; the Scientific and Technological Research Council of Turkey, Istanbul Technical University and Middle East Technical University for their valuable support.

The Editors

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