Parallel CFD 2008, the twentieth in the high-level international series of meetings featuring different aspect of parallel computing in computational fluid dynamics and other modern scientific domains was held May 19 – 22, 2008 in Lyon, France.

The themes of the 2008 meeting included the traditional emphases of this conference, and experiences with contemporary architectures. Around 70 presentations were included into the conference program in the following sessions:

Parallel Algorithms and solvers
Parallel performances with contemporary architectures
Structured and unstructured grid methods, boundary methods
Software framework and components architecture
CFD applications (Bio fluid, environmental problem) Lattice Boltzmann method and SPH
Optimisation in Aerodynamics

This book presents an up-to-date overview of the state of the art in Parallel Computational Fluid Dynamics from Asia, Europe, and North America. This reviewed proceedings included about sixty percent of the oral lectures presented at the conference.

The editors.
Parallel CFD 2008 was organized by the Institut Camille Jordan of the University of Lyon 1 in collaboration with the Center for the Development of the Parallel Scientific Computing.

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Damien Tromeur-Dervout
Chairman, Parallel CFD 2008.
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