Civil-Comp Proceedings: 95

Proceedings of the
Second International Conference on
Parallel, Distributed, Grid and Cloud Computing
for Engineering

Civil-Comp Proceedings:

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Computational Structures Technology
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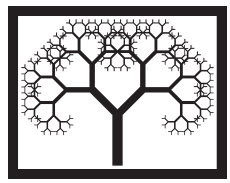
Proceedings of the Second International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering

Edited by
P. Iványi and B.H.V. Topping

Including special sessions organised by
J. Kruis, V. Vondrak, B.N. Chetverushkin, P. Bouvry, S. Khan, D. Tromeur-Dervout, S. Roller, M.M. Resch, A.I. Khan, A.H.M. Amin and J. Magiera



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High Performance Green Computing
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Special session organised by S. Roller and M.M. Resch

Grid Technology

Cloud Computing

Computational Fluid Dynamics

Engineering Applications

Preface

This volume comprises the summaries of contributed papers presented at The Second International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering (PARENG 2011) held in Ajaccio, Corsica, France, 12-15 April 2011. The full papers from the conference are available on the accompanying CD-ROM.

The special sessions included in this volume of Proceedings are:

- Domain Decomposition Methods in Engineering Computations
  organised by J. Kruis and V. Vondrak
- GPGPU Computing Systems
  organised by B.N. Chetverushkin
- High Performance Green Computing
  organised by P. Bouvry and S. Khan
- Parallel Preconditioning Techniques
  organised by D. Tromeur-Dervout
- Coupling Techniques for Multi-Scale and Multi-Physics Applications
  organised by S. Roller and M.M. Resch
- Parallel Genetic Algorithms: Methods and Applications
  organised by B.H.V. Topping and P. Iványi
- Pattern Recognition and Data Mining with Clouds, Grids, and Wireless Sensor Networks
  organised by A.I. Khan and A.H.M. Amin
- Engineering Software Refactoring for the (Ubiquitous) Parallel Computing Era
  organised by J. Magiera

We are particularly grateful to the special session organisers. The following sessions are also included in this volume:

- Service Oriented Computing
- Hybrid Parallelisation
- Performance Tuning
- Parallel Solvers
- Cluster Computing
- Massively Parallel Computations
- Parallel Mesh Generation
- Multigrid Methods
- Object Oriented Methods and Frameworks
- Particle Simulations
- Monte Carlo Simulations
- Image Processing

- Visualization
- Error Propagation
- Science Gateways for Grid and Cloud Systems
- Grid Technology
- Cloud Computing
- Computational Fluid Dynamics
- Engineering Applications

Other papers presented at this conference are published as follows:

- *The Review Lectures are published in:*
  Computational Technology Reviews, Volume 3, Saxe-Coburg Publications, Stirlingshire, Scotland, 2011.
- *The Invited Lectures are published in:*
  Trends in Parallel, Distributed, Grid and Cloud Computing for Engineering, P. Iványi and B.H.V. Topping, (Editors), Saxe-Coburg Publications, Stirlingshire, Scotland, 2011.

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