Computational Science for the 21st century

Conference in honor of Professor Roland Glowinski on the occasion of his 60th birthday

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CONTENTS OF THE CONFERENCE BOOK:

COMPUTATIONAL SCIENCE FOR THE 21ST CENTURY

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Computational science can loosely be defined as the endeavour to develop and analyse models for the simulation and control of complex processes. This is achieved by making optimal use of computer resources and by drawing upon a variety of disciplines, techniques and theories. With the emergence of advanced computational and information technologies, computational science now has a significant impact on engineering, physical, biological, management and social sciences.

The contributions in this state-of-the-art volume range from theoretical and numerical topics to practical implementations. The subject matter includes modelling, mathematical and numerical analysis, differential equations, linear algebra, optimization, domain decomposition, computational fluid dynamics, computational mechanics, elasticity, structures, computational physics and chemistry, electromagnetics, control theory and other applications.

This volume is dedicated to Roland Glowinski on the occasion of his 60th birthday. It is aimed at the next generation of scientists, applied mathematicians, computer scientists, practitioners and engineers who will define computational science within the context of the challenging scientific, industrial, economic and societal problems of the 21st century.

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Contents

CHAPTER 1 MATHEMATICAL ANALYSIS

Remarks about metastability
R. Jordan, D. Kinderlehrer, F. Otto

Global solutions to the system of the motion of elastic strings
L. Ta-tsien, L. Da-qian

Regularity results for the solution of the Cauchy problem to Navier-Stokes equations
J. Necas

Analyticity, and the lack thereof, of semigroups arising from thermo-elastic plates
R. Triggiani

CHAPTER 2 NUMERICAL LINEAR ALGEBRA

Roundoff induces a chaotic behaviour for eigensolvers applied to highly nonnormal matrices
T. Braconnier, F. Chaitin-Chatelin

About Newton-Krylov methods
J. Erhel

New approaches to large scale eigenanalysis
D. C. Sorensen

An approach to continuation using Krylov subspace methods
H. F. Walker

CHAPTER 3 MULTIGRIDS, DOMAIN DECOMPOSITION & FICTITIOUS DOMAIN METHODS

Adaptive algorithms and a posteriori error estimates on partitioned meshes
R. E. Bank, J. Périaux

Parallel domain decomposition for reaction-diffusion problems
M. Bercovier, N. Volfovsky, H. Parnas

Parallel solutions of optimal-control problems by time-domain decomposition
M. Berggren,M. Heinkenschloss

An analytic basis for multigrid methods for the stabilized finite element methods for the Stokes problem
Z. Cai, J. Douglas Jr

Numerical quadratures and mortar methods
L. Cazabeau, C. Lacour, Y. Maday

Local inexact Newton multilevel FEM for nonlinear elliptic problems
P. Deuflhard, M. Weiser

An analytical study of the optimal speed of convergence of iterations in DDM under certain shape assumptions of domains
H. Fujita, N. Saito

A fictitious domain method for Navier-Stokes equations
V. Girault, R. Glowinski, H. López, J.-P. Vila

Parallel solution of the wave equation using higher order finite elements
M. Kern

On numerical schemes for computing the price of look-back options
G. Barles, C. Daher, M. Romano, C. Tezier

An industrial vision of scientific computation for the 21st century
P. Bohn

Crisis or mutation in high-performance computing
P. Caseau

Filtering techniques in parallel computing
A. Ecer, H. U. Akay, N. Gopalaswamy

The description of the geographic spread in infectious disease
W. E. Fitzgibbon, M. Langlais

Vector finite elements and C++
F. Hecht, O. Pironneau

Numerical studies of the Gauss lattice problem
H. B. Keller

A robust resolution for the Zakai equation and infinitesimal generator of the asymptotic filtering process
P. Malliavin

Coifman wavelet systems: approximation, smoothness and computational algorithms
J. Tian, R. O. Wells Jr, J. E. Odergard, C. S. Burrus

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