Record Nr. UNINA9910483699903321 Transactions on computational science . III / / Marina L. Gavrilova, C.J. **Titolo** Kenneth Tan (Eds.) Pubbl/distr/stampa Berlin, : Springer, c2009 **ISBN** 3-642-00212-9 Edizione [1st ed. 2009.] Descrizione fisica 1 online resource (XI, 185 p.) Collana LNCS sublibrary. SL 1, Theoretical computer science and general issues LNCS transactions on computational science;; III Lecture notes in computer science; ; 5300 Altri autori (Persone) GavrilovaMarina L TanC. J. Kenneth Disciplina 004.6 Numerical analysis - Computer programs Soggetti Science - Mathematics - Computer programs Science - Data processing Research - Data processing Numerical calculations - Data processing Computational complexity Computer science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto 1: Computational Visualization and Optimization -- Visual Immersive Haptic Mathematics in Shared Virtual Spaces -- The Voronoi Diagram of Circles and Its Application to the Visualization of the Growth of Particles -- Designing Aircraft Cockpit Displays: Borrowing from Multimodal User Interfaces -- Parallel Optimal Weighted Links --Parallel Simulation of Oil Reservoirs on a Multi-core Stream Computer -- 2: Computational Methods for Model Design and Analysis --Efficient Reversible Logic Design of BCD Subtractors -- Missing Data Analysis: A Kernel-Based Multi-Imputation Approach -- The Average Solution of a Stochastic Nonlinear Schrodinger Equation under Stochastic Complex Non-homogeneity and Complex Initial Conditions -- Neural Network Representation for the Forces and Torque of the

Eccentric Sphere Model.

Sommario/riassunto

The LNCS journal Transactions on Computational Science reflects recent developments in the field of Computational Science, conceiving the field not as a mere ancillary science but rather as an innovative approach supporting many other scientific disciplines. The journal focuses on original high-quality research in the realm of computational science in parallel and distributed environments, encompassing the facilitating theoretical foundations and the applications of large-scale computations and massive data processing. It addresses researches and practitioners in areas ranging from aerospace to biochemistry, from electronics to geosciences, from mathematics to software architecture, presenting verifiable computational methods, findings and solutions and enabling industrial users to apply techniques of leadingedge, large-scale, high performance computational methods. Transactions on Computational Science III is devoted to the topic of computer systems research and its application, and is divided in two parts. The five papers in Part 1 focus on computational visualization and optimization, and the four papers in Part 2 are concerned with computational methods for model design and analysis.