

Research Articles



Long Time Behaviour of an Exponential Integrator for a Vlasov-Poisson System with Strong Magnetic Field

preview

Emmanuel Frénod, Sever A. Hirstoaga, Mathieu Lutz and Eric Sonnendrücker

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 263 - 296

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DOI: <http://dx.doi.org/10.4208/cicp.070214.160115a> (About DOI), Published online: 30 七月 2015

Abstract

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References
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A Constrained Finite Element Method Based on Domain Decomposition Satisfying the Discrete Maximum Principle for Diffusion Problems

preview

Xingding Chen and Guangwei Yuan

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 297 - 320

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DOI: <http://dx.doi.org/10.4208/cicp.120914.311214a> (About DOI), Published online: 30 七月 2015

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Computing the Ground and First Excited States of the Fractional Schrödinger Equation in an Infinite Potential Well

preview

Siwei Duo and Yanzhi Zhang

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 321 - 350

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DOI: <http://dx.doi.org/10.4208/cicp.300414.120215a> (About DOI), Published online: 30 七月 2015

Abstract

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The Diffused Vortex Hydrodynamics Method

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Emanuele Rossi, Andrea Colagrossi, Benjamin Bouscasse and Giorgio Graziani

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 351 - 379

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Numerical Simulations of Particle Sedimentation Using the Immersed Boundary Method

preview

Sudeshna Ghosh and John M. Stockie

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 380 - 416

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Human Mobility Patterns at the Smallest Scales

preview

Pedro G. Lind and Adriano Moreira

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 417 - 428

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An Immersed Interface Method for Axisymmetric Electrohydrodynamic Simulations in Stokes flow

preview

H. Nanguia, Y.-N. Young, A. T. Layton, W.-F. Hu and M.-C. Lai

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On Initial Conditions for the Lattice Boltzmann Method

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Juntao Huang, Hao Wu and Wen-An Yong

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 450 - 468

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Preconditioned Iterative Methods for Two-Dimensional Space-Fractional Diffusion Equations

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Xiao-Qing Jin, Fu-Rong Lin and Zhi Zhao

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 469 - 488

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Immersed Boundary – Thermal Lattice Boltzmann Methods for Non-Newtonian Flows Over a Heated Cylinder: A Comparative Study

preview

A. Amiri Delouei, M. Nazari, M. H. Kayhani and S. Succi

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Computational Software: Simple FMM Libraries for Electrostatics, Slow Viscous Flow, and Frequency-Domain Wave Propagation

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Zydrunas Gimbutas and Leslie Greengard

Communications in Computational Physics / Volume 18 / Issue 02 / 八月 2015, pp 516 - 528

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