

Research Articles



Convergence Study of Moment Approximations for Boundary Value Problems of the Boltzmann-BGK Equation

preview

Manuel Torrilhon

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 529 - 557

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DOI: <http://dx.doi.org/10.4208/cicp.061013.160215a> (About DOI), Published online: 14 九月 2015

Abstract

PDF
(1.284 MB)

References
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On the Finite Differences Used in Reacting Flow Simulations

preview

Robert Prosser

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 558 - 576

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DOI: <http://dx.doi.org/10.4208/cicp.260614.041214a> (About DOI), Published online: 14 九月 2015

Abstract

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Efficient Computation of Instantons for Multi-Dimensional Turbulent Flows with Large Scale Forcing

preview

Tobias Grafke, Rainer Grauer and Stephan Schindel

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 577 - 592

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DOI: <http://dx.doi.org/10.4208/cicp.031214.200415a> (About DOI), Published online: 14 九月 2015

Abstract

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Three-Dimensional Lattice Boltzmann Flux Solver and Its Applications to Incompressible Isothermal and Thermal Flows

preview

Yan Wang, Chang Shu, Chiang Juay Teo, Jie Wu and Liming Yang

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 593 - 620

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Boundary Control Problems in Convective Heat Transfer with Lifting Function Approach and Multigrid Vanka-Type Solvers

preview

Eugenio Aulisa, Giorgio Bornia and Sandro Manservigi

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 621 - 649

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DOI: <http://dx.doi.org/10.4208/cicp.130914.230115a> (About DOI), Published online: 14 九月 2015

Abstract

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(1.137 MB)

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A Finite Volume Scheme for Three-Dimensional Diffusion Equations

preview

Xiang Lai, Zhiqiang Sheng and Guangwei Yuan

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 650 - 672

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DOI: <http://dx.doi.org/10.4208/cicp.140813.230215a> (About DOI), Published online: 14 九月 2015

Abstract

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Effect of Geometric Conservation Law on Improving Spatial Accuracy for Finite Difference Schemes on Two-Dimensional Nonsmooth Grids

preview

Meiliang Mao, Huajun Zhu, Xiaogang Deng, Yaobing Min and Huayong Liu

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 673 - 706

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DOI: <http://dx.doi.org/10.4208/cicp.250614.060215a> (About DOI), Published online: 14 九月 2015

Abstract

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Direct Numerical Simulation of an Open-Cell Metallic Foam through Lattice Boltzmann Method

preview

Daniele Chiappini, Gino Bella, Alessio Festuccia and Alessandro Simoncini

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 707 - 722

Abstract

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(396 KB)

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Modelling and Numerics for Respiratory Aerosols

preview

Laurent Boudin, Céline Grandmont, Alexander Lorz and Ayman Moussa

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 723 - 756

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DOI: <http://dx.doi.org/10.4208/cicp.180714.200415a> (About DOI), Published online: 14 九月 2015

Abstract

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(398 KB)

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Lattice Boltzmann Simulation of Particle Motion in Binary Immiscible Fluids

preview

Yu Chen, Qinjun Kang, Qingdong Cai, Moran Wang and Dongxiao Zhang

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 757 - 786

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(1.329 MB)

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Numerical Simulation of the Motion of Inextensible Capsules in Shear Flow Under the Effect of the Natural State

preview

Xiting Niu, Lingling Shi, Tsorng-Whay Pan and Roland Glowinski

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 787 - 807

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Computational Software



Potentials

Dhairya Malhotra and George Biros

Communications in Computational Physics / Volume 18 / Issue 03 / 九月 2015, pp 808 - 830

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