

Volume 15, Number 4**[Editorial Board](#)***Commun. Comput. Phys.*, No. 4, [15 \(2014\)](#).**Articles in the Issue:****Preface**

Full Article

Review Article:

Kin-Yiu Wong

Review of Feynman's path integral in quantum statistics: from the molecular Schrödinger equation to Kleinert's variational perturbation theory.*Commun. Comput. Phys.*, 15 (2014), pp. 853-894.Published Online: January 21, 2014. [Abstract](#)

Full Article

[An [open-access](#) article; the [PDF](#) is free to any online user.]**Regular Articles:**

Gang Bao and Jun Lai

Radar cross section reduction of a cavity in the ground plane.*Commun. Comput. Phys.*, 15 (2014), pp. 895-910.Published Online: January 21, 2014. [Abstract](#)

Full Article

Na Liu and Huazhong Tang

A high-order accurate gas-kinetic scheme for one- and two-dimensional flow simulation.*Commun. Comput. Phys.*, 15 (2014), pp. 911-943.Published Online: January 21, 2014. [Abstract](#)

Full Article

Zhengzheng Yan, Rongliang Chen, Yubo Zhao and Xiao-Chuan Cai

A scalable numerical method for simulating flows around high-speed train under crosswind conditions.*Commun. Comput. Phys.*, 15 (2014), pp. 944-958.Published Online: January 21, 2014. [Abstract](#)

Full Article

Jun Zhu and Jianxian Qiu

Finite volume Hermite WENO schemes for solving the Hamilton-Jacobi equation.*Commun. Comput. Phys.*, 15 (2014), pp. 959-980.Published Online: January 21, 2014. [Abstract](#)

Full Article

T. S. Ramazanov, S. K. Kodanova, M. K. Issanova, N. Kh. Bastykova and Zh. A. Moldabekov

The modern information technologies and visualization methods for analysis of computer simulation results for complex plasma.*Commun. Comput. Phys.*, 15 (2014), pp. 981-995.Published Online: January 21, 2014. [Abstract](#)

Full Article

Qin Li and Xu Yang

Exponential Runge-Kutta methods for the multispecies Boltzmann equation.*Commun. Comput. Phys.*, 15 (2014), pp. 996-1011.Published Online: January 21, 2014. [Abstract](#)

Full Article

Li Guo and Yan Xu

Local discontinuous Galerkin methods for the 2D simulation of quantum transport phenomena on quantum directional coupler.*Commun. Comput. Phys.*, 15 (2014), pp. 1012-1028.Published Online: January 21, 2014. [Abstract](#)

Full Article

Jin Qi, Yue Wang and Jiequan Li

Remapping-free adaptive GRP method for multi-fluid flows I: one dimensional Euler equations.*Commun. Comput. Phys.*, 15 (2014), pp. 1029-1044.

Full Article

Published Online: January 21, 2014. [Abstract](#)

Wenqiang Feng, Xiaoming He, Yanping Lin and Xu Zhang

Immersed finite element method for interface problems with algebraic multigrid solver.

Commun. Comput. Phys., 15 (2014), pp. 1045-1067.

Published Online: January 21, 2014. [Abstract](#)



Full Article

Mingxia Li, Jingzhi Li and Shipeng Mao

Numerical analysis of an adaptive FEM for distributed flux reconstruction.

Commun. Comput. Phys., 15 (2014), pp. 1068-1090.

Published Online: January 21, 2014. [Abstract](#)



Full Article

Yinhua Xia and Yan Xu

A conservative local discontinuous Galerkin method for the Schrödinger-KdV system.

Commun. Comput. Phys., 15 (2014), pp. 1091-1107.

Published Online: January 21, 2014. [Abstract](#)



Full Article

Wenjun Ying and Wei-Cheng Wang

A kernel-free boundary integral method for variable coefficients elliptic PDEs.

Commun. Comput. Phys., 15 (2014), pp. 1108-1140.

Published Online: January 21, 2014. [Abstract](#)



Full Article

Buyang Li, Jilu Wang and Weiwei Sun

The stability and convergence of fully discrete Galerkin-Galerkin FEMs for porous medium flows.

Commun. Comput. Phys., 15 (2014), pp. 1141-1158.

Published Online: January 21, 2014. [Abstract](#)



Full Article

Zh. A. Moldabekov and T. S. Ramazanov

Computer simulation of two component dense plasma by molecular dynamics method.

Commun. Comput. Phys., 15 (2014), pp. 1159-1166.

Published Online: January 21, 2014. [Abstract](#)



Full Article

Jian Liu, Zhi Yu and Hong Qin

A nonlinear PIC algorithm for high frequency waves in magnetized plasmas based on gyrocenter gauge kinetic theory.

Commun. Comput. Phys., 15 (2014), pp. 1167-1183.

Published Online: January 21, 2014. [Abstract](#)



Full Article

Zhenzhen Li, Xijun Yu, Jiang Zhu and Zupeng Jia

A Runge Kutta discontinuous Galerkin method for Lagrangian compressible Euler equations in two-dimensions.

Commun. Comput. Phys., 15 (2014), pp. 1184-1206.

Published Online: January 21, 2014. [Abstract](#)



Full Article

Can Huang and Di Liu

Strong convergence and speed up of nested stochastic simulation algorithm.

Commun. Comput. Phys., 15 (2014), pp. 1207-1236.

Published Online: January 21, 2014. [Abstract](#)



Full Article

[\[BACK TO MAIN PAGE\]](#)