

## Preface: Special Issue on Progress in Fluid Dynamics and Simulation (PFDS)

preview

**Kun Xu and Jaw-Yen Yang**

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp i - ii

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DOI: <http://dx.doi.org/10.4208/cicp.2015.v18n4.preface> (About DOI), Published online: 15 十月 2015

Abstract

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### Research Articles

## A Biological Model of Acupuncture and its Derived Mathematical Modeling and Simulations

preview

**Marc Thiriet, Yannick Deleuze and Tony Wen-Hann Sheu**

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 831 - 849

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DOI: <http://dx.doi.org/10.4208/cicp.121214.250515s> (About DOI), Published online: 15 十月 2015

Abstract

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References  
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## Modeling and Simulation of the Interstitial Medium Deformation Induced by the Needle Manipulation During Acupuncture

preview

**Yannick Deleuze, Marc Thiriet and Tony Wen-Hann Sheu**

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 850 - 867

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DOI: <http://dx.doi.org/10.4208/cicp.101214.240515s> (About DOI), Published online: 15 十月 2015

Abstract

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References  
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## A Mathematical Model for the Instigation and Transmission of Biological and Neural Signals in Response to Acupuncture

preview

**Wei Yao, Na Yin, Hongwei Yang and Guanghong Ding**

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 868 - 880

Abstract	<b>PDF</b> (4.321 MB)	References (37 KB)
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### Vortical Flow Structure in the Wake of an Estate Car

preview

**Phillip Gwo-Yan Huang and Tony Wen-Hann Sheu**

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 881 - 900

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### A Slope Constrained 4th Order Multi-Moment Finite Volume Method with WENO Limiter

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**Ziyao Sun, Honghui Teng and Feng Xiao**

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 901 - 930

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Abstract	<b>PDF</b> (2.403 MB)	References (65 KB)
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### Simulation of Incompressible Free Surface Flow Using the Volume Preserving Level Set Method

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**Ching-Hao Yu and Tony Wen-Hann Sheu**

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 931 - 956

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### Construction, Analysis and Application of Coupled Compact Difference Scheme in Computational Acoustics and Fluid Flow Problems

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**Jitenjaya Pradhan, Amit, Bikash Mahato, Satish D. Dhandole and Yogesh G. Bhumkar**

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References  
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## **A Compact Third-Order Gas-Kinetic Scheme for Compressible Euler and Navier-Stokes Equations**

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**Liang Pan and Kun Xu**

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References  
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## **High-Order Conservative Asymptotic-Preserving Schemes for Modeling Rarefied Gas Dynamical Flows with Boltzmann-BGK Equation**

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**Manuel A. Diaz, Min-Hung Chen and Jaw-Yen Yang**

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References  
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## **Multiphysics Modeling of Liver Tumor Ablation by High Intensity Focused Ultrasound**

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**Maxim Solovchuk, Tony Wen-Hann Sheu and Marc Thiriet**

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References  
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## **Direct-Forcing Immersed Boundary Method for Mixed Heat Transfer**

preview

Ming-Jyh Chern, Dedy Zulhidayat Noor, Ching-Biao Liao and Tzyy-Leng Horng

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Abstract

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### Modelling Rarefied Hypersonic Reactive Flows Using the Direct Simulation Monte Carlo Method

preview

Ming-Chung Lo, Cheng-Chin Su, Jong-Shinn Wu and Kun-Chang Tseng

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 1095 - 1121

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### Dynamics and Instability of a Vortex Ring Impinging on a Wall

preview

Heng Ren and Xi-Yun Lu

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 1122 - 1146

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### Stability and Conservation Properties of Collocated Constraints in Immersogeometric Fluid-Thin Structure Interaction Analysis

preview

David Kamensky, John A. Evans and Ming-Chen Hsu

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 1147 - 1180

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Abstract

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(162 KB)



### Simulation of Two-Dimensional Scramjet Combustor Reacting Flow Field

Juan-Chen Huang, Yu-Hsuan Lai, Jeng-Shan Guo and Jaw-Yen Yang

Communications in Computational Physics / Volume 18 / Issue 04 / 十月 2015, pp 1181 - 1210

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Abstract

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