Curriculum Vitae

NAME:	Bin CHEN
DATE OF BIRTH:	November 07, 1971
PLACE OF BIRTH:	Henan, China
MARITAL STATUS:	Married (one child)
CITIZENSHIP:	P. R. CHINA
TITLE:	Professor of Thermal Engineering
OFFICE:	State Key Laboratory of Multiphase Flow in Power Engineering, Xi'an Jiaotong University Xi'an, Shaanxi, 710049 CHINA Tel: 86-29-82667326, Fax: 86-29-82669033 Email: chenbin@mail.xjtu.edu.cn

EDUCATION:

1989-1993	Bachelor of Power Engineering, Xi'an Jiaotong University
1993-1996	Master of Cryogenic Engineering, Xi'an Jiaotong University
1997-2002	Ph.D. of Thermal Engineering, Xi'an Jiaotong University

RESEARCH EXPERIENCE:

2002.03-2004.03	Postdoctoral Fellow of Japan Society for the Promotion of Science (JSPS) Center for Smart Control of Turbulence, National Maritime Research Institute University of Tokyo

PROFESSIONAL EMPLOYEEMENT:

1996.07-2000.04	Lecturer, Chemical Engineering School, Xi'an Jiaotong University
2000.05-2003.07	Lecturer, State Key Laboratory of Multiphase Flow in Power Engineering, Xi'an Jiaotong University
2003.08-2008.01	Associate Professor, State Key Laboratory of Multiphase Flow in Power Engineering, Xi'an Jiaotong University
2008.02-present	Professor, State Key Laboratory of Multiphase Flow in Power Engineering, Xi'an Jiaotong University
2009.01~present	Vice Director, State Key Laboratory of Multiphase Flow in Power Engineering, Xi'an Jiaotong University

ACADEMIC TEACHING EXPERIENCE:

- Two-phase and Multiphase Flow Dynamics for graduates
- Fortran Language for undergraduates;

MEMBERSHIP:

- Director, subsidiary panels of Multi-phase Flows and Non-Newtonian Flows, professional committee of Fluid Mechanics, the Chinese Society of Theoretical and Applied Mechanics (CSTAM)
- Member, World Academy of Science, Engineering and Technology
- Member, International Information Center for Multiphase Flow (ICeM)
- Member, American Society of Thermal and Fluids Engineering (ASTFE)
- Senior member, International Association of Computer Science and Information Technology (IACSIT)
- Member, the Society of Chemical Engineers, Japan

EDITORIAL BOARD:

- American Journal of Heat and Mass Transfer
- HSOA Journal of Clinical Dermatology and Therapy
- The Open Journal of Fluid Dynamics, Scientific Research Publishing
- Engineering, Scientific Research Publishing
- Journal of Chemical Industry and Engineering (CIESC Journal), China

RESEARCH INTERESTS:

- Heat Transfer in BioMedical Engineering
- Computational Heat Transfer and Fluid Dynamics

REFEREED JOURNAL PAPERS (Selected):

1. Zhi-fu ZHOU, **Bin CHEN**, Rui WANG, Fei-long, BAI, Guo-xiang WANG, Coupling Effect of Hypobaric Pressure and Spray Distance on Heat Transfer Dynamics of R134a Pulsed Flashing Spray Cooling. Experimental Thermal and Fluid Science , 2016, 70:96–104

2. **Bin Chen***, Zhiwei Wang, Guojie Li and Yechun Wang. Experimental Investigation of the Evolution and Head-On Collision of Elliptic Vortex Rings. Journal of Fluids Engineering-Transactions of the ASME, 2016, 138(3): 031203

3. Rui Wang, Zhifu Zhou, **Bin Chen**, Feilong Bai, Guoxiang Wang, Surface heat transfer characteristics of R404A pulsed spray cooling with an expansion-chambered nozzle for laser dermatology. International Journal of Refrigeration, 2015, 60:206-216

4. Dong Li, **Bin Chen**, Wei Yu Ran, Guo Xiang Wang, Wen Juan Wu, Selection of voxel size and photon number in voxel-based Monte Carlo method: criterions and applications. Journal of Biomedical Optics, 2015, 20(9):095014

5. Yong Zhang, **Bin Chen**, Dong Li, Guo-Xiang Wang. Efficient and Accurate Simulations of the Light Propagation in the Bio-Tissue by a Three-Dimensional Geometric Monte Carlo Method. Numerical Heat Transfer, Part A: Applications, 2015, 68(8): 827–846

6. **Bin Chen**, Guojie Li, Weimeng Wang, Peng Wang. 3D numerical simulation of droplet passive breakup in a

micro-channel T-junction using the Volume-Of-Fluid method. Applied Thermal Engineering, 2015, 88:94–101

7. Guangtao Duan, Seiichi Koshizuka, **Bin Chen**, A Contoured Continuum Surface Force Model for Particle Method. Journal of Computational Physics, 2015, 298:280–304

8. Guangtao DUAN, **Bin CHEN**. Large Eddy Simulation by Particle Method Coupled with Sub-Particle-Scale Model and Application to Mixing Layer Flow. Applied Mathematical Modelling, 2015, 39 (10-11):3135-3149

9. Guangtao Duan, **Bin Chen**. Comparison of Parallel Solvers for Moving Particle Semi-implicit Method. Engineering Computations, 2015, 32(3): 834-862

10. Hao Jia, **Bin Chen**, Dong Li, Yong Zhang, Boundary discretization in the numerical simulation of light propagation in skin tissue: problem and strategy, Journal of Biomedical Optics, 2015, 20(2):025007

11. Xiang Hao, **Chen Bin**. Simulating non-Newtonian flows with the moving particle semi-implicit method with an SPH kernel. Fluid Dynamics Research. Fluid Dynamics Research, 2015, 47(1):015511

12. D Li, **B Chen**, W J Wu, G X Wang, Y L He, Z X Ying. Experimental Study on the Vascular Thermal Response to Visible Laser Pulses. Lasers in Medical Science, 2015, 30(1): 160-169

13. Li D., **Chen B*.**, Wu W.J., Wang G.X., He Y.L. Multi-scale modeling of tissue freezing during cryogen spray cooling with R134a, R407c and R404a. *Applied Thermal Engineering*, 2014, 73(2):1489-1500

14. D. Li, D. Farshidi, G.X. Wang, Y.L. He, K.M. Kelly, W.J. Wu, **B. Chen** and Z.X. Ying. A comparison of microvascular responses to visible and near-infrared lasers. *Lasers in Surgery and Medicine*. 2014, 46(6):479–487

15. **Bin Chen***, Zhiwei Wang, Tomomi Uchiyama. Numerical Simulation of Bubble Cluster Induced Flow by Three-Dimensional Vortex-in-Cell Method. Journal of Fluids Engineering - Transactions of the ASME, 2014, 136(8):081301-081301-16

16. D. Li, G.X. Wang, Y.L. He, W.J. Wu, **B. Chen**. A three-temperature model of selective photothermolysis for laser treatment of port wine stain containing large malformed blood vessels. Applied Thermal Engineering, 2014, 65(1-2):308-321

17. **Bin Chen**, Fang Guo, Guojie Li, Peng Wang. Three-Dimensional Simulation of Bubble Formation through a Microchannel T-Junction. Chemical Engineering & Technology. 2013, 36(12):1-15

18. Zhiwei Wang, Tomomi Uchiyama, **Bin Chen**. Numerical simulation of the interaction between vortex ring and bubble plume. Applied Mathematical Modelling. 2013, 37(24):10007–10026

19. Guangtao Duan and **Bin Chen**. Stability and accuracy analysis for viscous flow simulation by the moving particle semi-implicit method. Fluid Dynamics Research, 2013:45-035501

20. Zhifu Zhou, Guoxiang Wang, **Bin Chen**, Yueshe Wang, et al. Comparison and Evaluation of Evaporation Models for Single Moving Droplet with a High Evaporation Rate, Powder Technology, 2013, 240:5-102

21. ZHOU Zhifu, WU Weitao, GUO Liejin, **CHEN Bin**, WANG Yueshe, WANG Guoxiang. An Experimental Study on the Spray and Thermal Characteristics of R134a Two-Phase Flashing Spray. International Journal of Heat and Mass Transfer, 2012, 55(15-16): 4460-4468

22. Zhifu Zhou, **Bin Chen**, Yueshe Wang, Liejin Guo, Guoxiang Wang. An Experimental Study on Pulsed Spray Cooling with Refrigerant R-404a in Laser Surgery. *Applied thermal Engineering*, 2012, **39**(4):29-36

23. Meng Huang, Lilong Wu, **Bin Chen**, A piecewise linear interface calculation-volume of fluid method based on

unstructured grids. Numerical Heat Transfer, Part B: Fundamentals, 2012 61(5): 412-437

24. Zhiwei Wang, **Bin Chen**, Numerical investigation of the evolution of elliptic vortex ring, *Progress in Computational Fluid Dynamic*s. 2012, **12**(1): 19-26

25. **Bin Chen**, Fang Guo, Hao Xiang. Visualization study of motion and deformation of red blood cells in a microchannel with straight, divergent and convergent section. *Journal of Biological Physics*, 2011, **37**(4): 429-440

26. Lilong Wu, **Bin Chen**, Gaoling Zhou. An Improved Bubble Packing Method for Unstructured Grid Generation with Application to Computational Fluid Dynamics. *Numerical Heat Transfer, Part B: Fundamentals*, 2010, **58**(3): 343–369

27. Fude Guo, **Bin Chen** , Liejin Guo, Ximin Zhang. Investigation of Turbulent Mixing Layer Flow in a Vertical Water Channel by Particle Image Velocimetry (PIV). *Canadian Journal of Chemical Engineering*, 2010, **88**(6): 919-928

28. Fude Guo, Yahui Yang, **Bin Chen**, Liejin Guo. A Novel Multi-scale Edge Detection Technique Based on Wavelet Analysis with Application in Multiphase Flow. *Power Technology*, 2010, **202**(1-3):171-177

29. Fude GUO, **Bin CHEN**, Liejin GUO, Ximin ZHANG. Investigation of Turbulent–Mixing–Layer Flow with Polymer Additives and Bubble Injection by Particle Image Velocimetry. *Journal of Chemical Engineering of Japan*, 2010, **43**(9): 730-736

30. Meng HUANG, **Bin CHEN**, Lilong WU. A SLIC-VOF Method Based on Unstructured grid. *Microgravity - Science and Technology*, 2010, **22(3)**:305–314

CONFERENCE SERVES:

- Chair, *8th International Conference on Vortex Flows and Vortex Models*, Xi'an, 2018
- Co-Chair, Mini-Symposium, Recent Advances In Meshfree and Particle Methods, *The 6th International Conference on Computational Methods*, July 14-17th, 2015, Auckland, New Zealand
- Chair of Local Organizing Committee, *12th International conference on Clean Energy (ICCE 2012)*, Xi'an, China, October 26-30, 2012
- Executive Committee, 6th International Conference on Vortex Flows and Vortex Models, Nagoya, Japan, November 17th to 20th, 2014
- Organizing Committee, *2012 Spring World Congress on Engineering and Technology (SCET)*, Xi'an, China, May 25-29, 2012
- Organizing Committee, *2011 International Workshop on Heat Transfer Advances for Energy Conversion and Pollution Control*, Xi'an, 17-20 October, 2011
- Reviewer，*2011 International Symposium on Chemical Engineering and Material Properties (ISCEMP 2011)*, China, Nov 4-6, 2011
- Scientific Committee, *R'09 Twin World Congress – Resource Management and Technology for Material and Energy Efficiency*, Nagoya Japan & Davos Switzerland, September 14-16, 2009
- General Secretariat, *5th International Symposium of Multiphase Flow (ISMF '05)*, China, July 3-8, 2005