

Curriculum Vitae

Bangwei She

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Postdoc @ Institute of Mathematics, Czech Academy of Science

Address: Žitná 25, 11567, Praha, Czech Republic

Gender: Male

Birth: Apr.1987, Anhui

Citizenship: Chinese

Research interests

viscoelastic fluids; (in)compressible Navier–Stokes; Euler system;
finite volume; finite element; gas–kinetic scheme; Hermite-Spectral method;
energy stability; convergence; multiscale simulation; ...

Education

2012.03 – 2015.03 *PhD* Supervisor: Mária Lukáčová
Institute of Mathematics, University of Mainz. Mainz, Germany
Institute of Mathematics, Waseda University. Tokyo, Japan(09.2013-03.2014)
Thesis: Numerical simulation on some viscoelastic fluids

2008.09 – 2011.07 *Master* Supervisor: Guiping Zhao
Institute of Applied Physics and Computational Mathematics. Beijing, China
Thesis: Gas kinetic scheme for compressible two-phase flow model containing non-conservative terms

2004.09 – 2008.06 *Bachelor*
Modern Mechanics, University of Science and Technology of China. Hefei, China

Academic experience

07.2015 – Postdoc, Institute of Mathematics, Czech Academy of Science
Mentor: Eduard Feireisl

Topic: convergent numerical solution for compressible viscous fluids

03.2015 – 06.2015 Postdoc, Institute of Mathematics, University of Mainz
Mentor: Mária Lukáčová

Topic: energy stable scheme of diffusive Oldroyd-B viscoelastic flow

Publications

B. She and G. Zhao. A gas-kinetic scheme for compressible two-phase flow model containing non-conservative products, Chinese Journal of Computational Physics 29(1), 2012, 51–57.

M. Lukáčová-Medvid'ová, H. Mizerová, B. She and J. Stebel. Error analysis of the finite element and finite volume methods for some viscoelastic fluids, J. Numer. Math. 24(2), 2016, 105–123.

M. Lukáčová-Medvid'ová, H. Notsu, B. She. Energy dissipative characteristic schemes for the diffusive Oldroyd-B viscoelastic fluid, Int. J. Numer. Methods Fluids. 81(9), 2016, 523–557.

R. Hošek, B. She. Stability and consistency of a finite difference scheme for compressible viscous isentropic flow in multi-dimension, accepted by J. Numer. Math, 2017. [Published Online: https://doi.org/10.1515/jnma-2017-0010](https://doi.org/10.1515/jnma-2017-0010).

E. Feireisl, M. Lukáčová-Medvid'ová, Š. Nečasová, A. Novotný and B. She. Asymptotic preserving error estimates for numerical solutions of compressible Navier-Stokes equations in the low Mach number regime, Multiscale Model. Simul., 16 (1), 2018, 150–183.

Preprints

- R. Hošek, [B. She](#). Convergent numerical method for the compressible Navier-Stokes-Fourier system: a stabilized scheme, [CAS preprint 2017](#).
- H. Mizerová, [B. She](#). Multiscale simulation of dilute polymer solutions, [CAS preprint 2017](#).

Visits

- 2018.Jan.02-07. IAPCM, Beijing, China, Prof. Jiequan Li
- 2017.Nov.19-25. University of Mainz, Mainz, Germany. Prof. Mária Lukáčová.
- 2017.Mar.22-31. Polish Academy of Science, Warsaw. Prof. Agnieszka Świerczewska-Gwiazda.
- 2016.Dec.11-21. University of Mainz, Mainz, Germany. Prof. Mária Lukáčová & Dr. Hana Mizerová.
- 2015.Dec.5-12. University of Mainz, Mainz, Germany. Prof. Mária Lukáčová.
- 2013.Sep.8–2014.Mar.8. Waseda University, Tokyo, Japan. Associate Prof. Hirofumi Notsu.
- 2013.Jun.5–8. Ecole des Ponts ParisTech, Paris, France. Prof. Tony Lelièvre.

Conference talks

- 2017. Dec. International workshop for young researchers at Institute of Mathematics, Tongji University, Shanghai
- 2017. Sep. Poitiers-Prague-Würzburg workshop on PDEs, Prague
- 2017. Jul. Equadiff 2017, Bratislava.
- 2016. Oct. Advanced numerical methods: recent developments, analysis, and applications, Paris.
- 2016. Sep. First China Czech Conference on Mathematical Fluid Mechanics, Beijing
- 2015. Mar. The 11th Japanese-German International Workshop on Mathematical Fluid Dynamics, Tokyo.
- 2014. Oct. Autumn School and Workshop on Mathematical Fluid Dynamics, Bad Boll, Germany.
- 2014. May. Sino-German symposium on modern numerical methods for compressible fluid flows and related problem, Beijing.
- 2014. Jan. Winter Seminar and Klausurtagung “Fluids and Snow”, Chalet Giersch, La Clusaz, France.
- 2013. Nov. The 9th Japanese-German International Workshop on Mathematical Fluid Dynamics, Tokyo.
- 2013. Jun. The 8th Japanese-German International Workshop on Mathematical Fluid Dynamics, Tokyo.
- 2012. Jun. The 5th Japanese-German International Workshop on Mathematical Fluid Dynamics, Tokyo.

Seminar talks

- 2018. Jan. 3. Institute of Applied Physics and Computational Mathematics, Beijing
- 2017. Nov. 30. Faculty of Mathematics and Physics, Charles University, Prague.
- 2017. Oct. 13. Institute of Mathematics, Czech Academy of Sciences, Prague.
- 2016. Sep. 23. Institute of Mathematics, Tongji University, Shanghai.
- 2016. Apr. 07. Faculty of Mathematics and Physics, Charles University, Prague.
- 2015. Dec. 04. Institute of Mathematics, Czech Academy of Sciences, Prague.
- 2015. Feb. 10. Institute of Mathematics, Technical University Darmstadt, Darmstadt.