Guanjie Wang (Updated August 3, 2024)

CONTACT Information School of Statistics and Mathematics

Shanghai Lixin University of Accounting and Finance

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RESEARCH INTERESTS Numerical Solution of PDEs, Uncertainty Quantification.

Current

Associate Professor

Position Shanghai Lixin University of Accounting and Finance, Shanghai Dec. 2023~ Present

POSITION OCCUPIED

Lecture

Shanghai Lixin University of Accounting and Finance, Shanghai Mar. 2020~Dec. 2023

Research Assistant Professor

Shanghai Tech University, Shanghai Apr. 2018~Feb, 2020

Postdoctoral Fellow

Chinese Academy of Sciences, Shanghai Jul. 2015~Mar. 2018

EDUCATION

Zhejiang University, Hangzhou, Zhejiang, China

Doctor of Philosophy, Computational Mathematics $Sep.2010 \sim Jun. 2015$

Qufu Normal University, Qufu, Shandong, China

Bachelor of Science, Mathematics and Applied Mathematics Sep. $2006 \sim Jul.~2010$

Publications

Co-first Author, * Corresponding Author.

- [1] X. Shi, H. Zhang and **G. Wang***. ANOVA-GP modeling for high-dimensional Bayesian inverse problems, Mathematics, 12(2), 301, 2024.
- [2] G. Wang, S. Sahu and Q. Liao. "An adaptive ANOVA stochastic Galerkin method for partial differential equations with high-dimensional random inputs", *Journal of Scientific Computing*, 98 (1), 24, 2024.
- [3] **G. Wang** and Q. Liao. "Reduced basis Galerkin method for partial differential equations with random inputs", *Applied Mathematics and Computation*, **463**, 128375, 2024.
- [4] M. Li, Y. Feng and **G. Wang***. "Estimating failure probability with neural operator hybrid approach", *Mathematics*, **11**(12), 2762, 2023.
- [5] G. Wang, F. Xue and Q. Liao. "Localized stochastic Galerkin methods for Helmholtz problems close to resonance", *International Journal for Uncertainty Quantification*, 11(5), 77-99, 2021.
- [6] Q. Huang, K. Li, G. Wang and X. Du. "Stochastic finite element methods with the Euclidean degree for partial differential equations with random inputs", 2020 Chinese Control And Decision Conference (CCDC), Hefei, China, 634-640, 2020.
- [7] G. Wang and Q. Liao. "An adaptive hybrid spectral method for stochastic Helmholtz problems", Numerical Mathematics: Theory, Methods and Applications, 13(4), 1007-1026, 2020.
- [8] G. Wang and Q. Liao. "Efficient spectral stochastic finite element methods for Helmholtz equations with random inputs", East Asian Journal on Applied Mathematics, 9(3), 601-621, 2019.

- [9] J. Zhu and **G. Wang**. "Fast computation of wave propagation in the open acoustical waveguide with a curved interface", *Wave motion*, **57**, 171-181, 2015.
- [10] J. Zhu and **G. Wang**. "New computational treatment of optical wave propagation in lossy waveguides", Frontiers of Information Technology & Electronic Engineering, **16**(8), 646-653, 2015.
- [11] J. Zhu and **G. Wang**. "High-precision computation of optical propagation in inhomogeneous waveguides", *Journal of the Optical Society of America A*, **32**(9), 1653-1660, 2015.

TEACHING EXPERIENCE

- 1. At the School of Statistics and Mathematics, Shanghai Lixin University of Accounting and Finance, since 2020. Courses taught:
 - (1) Linear Algebra (EM), spring 2022-2023, 2023-2024;
 - (2) Advanced Mathematics (B)-calculus I, fall 2021-2022, 2022-2023, 2023-2024, 2024-2025;
 - (3) Advanced Mathematics (B)-calculus II, spring 2021-2022, 2022-2023, 2023-2024;
 - (4) Probability and Mathematical Statistics (EM), fall 2021-2022, 2022-2023; spring 2019-2020, 2020-2021.
- 2. At the School of Information Science and Technology, ShanghaiTech University, teaching assist for:
 - (1) Numerical methods for partial differential equations (postgraduate), fall 2018-2019;
 - (2) Linear Algebra (undergraduate), fall 2015-2016.
- 3. At the International College, Zhejiang University, teaching assistant for:
 - (1) Introduction to Calculus I (oversea students), fall 2012-1013, 2013-2014;
 - (2) Introduction to Linear Algebra (oversea students), spring 2012-1013, 2013-2014.
- 4. At the Department of Mathematics, Zhejiang University, teaching assistant for:
 - (1) Linear Algebra, Advanced Algebra, 2013/03-2014/01.

ACADEMIC CONFERENCES

I have attended the following conferences and workshops:

- 1. "An adaptive ANOVA stochastic Galerkin method for partial differential equations with random inputs", CSIAM-UQ 2023, 20–21, May, 2023, Yantai, China.
- 2. "Reduced basis Galerkin method for partial differential equations with random inputs", *CSIAM 2019*, 19–22, September, 2019, Foshan, China, (contributed talk).
- 3. Mathematics Science Forum Based on Material Movement Cognition, 18–20 May 2019. East China Normal University, Shanghai, China.
- 4. CSIAM 2017, 13-15, October, 2017, Qingdao, China.
- 5. International Summer School on Scientific Computing, 24 July 5 August, 2017, Beijing, China.
- 6. 10th Annual Conference; Computational mathematics; China Society for Computational Mathematics, 19–21 September, 2015, Guangzhou, China.

Computer Skills

Linux, Matlab, LATEX, html, etc.