

KEJUN TANG

PERSONAL DATA

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RESEARCH INTERESTS

tensor decomposition, machine learning, compressed sensing, uncertainty quantification.

EDUCATION

09/2017-present: Ph.D., candidate, Computational mathematics, School of Information Science and Technology, ShanghaiTech University
02/2019-08/2019: Visiting scholar of Center for Computation and Technology at Louisiana State University
09/2015-07/2017: M.A., Computational mathematics, School of Information Science and Technology, ShanghaiTech University
09/2011-07/2015: B.S., Computational mathematics, School of Mathematics and Information Science, YanTai University

TEACHING ASSISTANT

- Spring 2018, ShanghaiTech: Machine Learning (graduate)
- Spring 2016, ShanghaiTech: Probability and Statistics (undergraduate)
- Fall 2015, ShanghaiTech: Linear Algebra (undergraduate)

PROJECTS

- Voice/music separation via robust principal component analysis
- Predicting NBA championship using history data
- Solution of Poisson equation using Q_3 finite element method
- Algebraic multi-grid for Poisson equation and its application in image fusion
- Nonlinear conjugate gradient method for missing data Tucker decomposition
- Riemannian manifold method for high-order tensor completion using tensor train
- Tensor decomposition with missing data for stochastic physical model

SELECTED PUBLICATIONS

- Rank adaptive tensor recovery based model reduction for PDEs with high-dimensional random inputs, submitted to Journal of Computational Physics.
- A hierarchical neural hybrid method for failure probability estimation, accepted by IEEE Access.

INVITED TALKS

- “Rank adaptive tensor recovery based model reduction for PDEs with high-dimensional random inputs”, invited talk of uncertainty quantification and data-driven symposium at SIAM CSE 2019, Spokane, Washington, February 2019.
- “Tensor recovery for PDEs with high-dimensional random inputs”, contributed talk at CSIAM, Chengdu, China, September 2018.

AWARDS

- National Endeavor Fellowship, 2014
- Second Prize of The Chinese Mathematics Competitions, 2014
- Honorable Mention of Mathematical Contest In Modeling, 2014
- Excellent Student Scholarship, 2013

SKILLS

Programming: Python, Matlab, C
Operating Systems: Linux, UNIX
Github: <https://github.com/MJfadeaway>
Website: <https://www.tangkejun.com>