Kejun Tang

Personal Data

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Research Interests

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

Education

09/2017-present: Ph.D., candidate, Computational mathematics, School of Information Science and Technology, ShanghaiTech 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

Selected Publication

- Rank adaptive tensor recovery based model reduction for PDEs with high-dimensional random inputs, submit to Journal of Computational Physics

Teaching Assistant

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

Invited talks

- "Tensor recovery for PDEs with high-dimensional random inputs" invited talk at CSIAM, September 2018.
- "Rank adaptive tensor recovery based model reduction for PDEs with high-dimensional random inputs", invited talk of UQ and data-driven symposium at SIAM CSE 2019, February 2019.

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 Tucker decomposition with missing data
- Riemannian manifold method for high-order tensor completion using tensor train
- Tensor decomposition with missing data for stochastic physical model

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`