



Bing Tan

Ph.D. Candidate

Biography

I am a first-year Ph.D. candidate in Mathematical Optimization at University of Electronic Science and Technology of China, co-advised by Prof. Songxiao Li and Prof. Xiaolong Qin. Prior to that, I received a B.Sc. in Applied Mathematics from Southwest Petroleum University. My research interests lie at the intersection of optimization and image processing. I currently work on designing fast and practical algorithms for optimization problems in Hilbert spaces.

Research Interests

Optimization algorithms, theory, applications.

Variational inequality, Fixed Point Theory and Applications.

Extragradient method, Tseng's splitting method.

Education

- 2020–present **PhD of Applied Mathematics**, *Institute of Fundamental and Frontier Sciences*, University of Electronic Science and Technology of China, China.
Co-supervisor: Prof. Songxiao Li and Prof. Xiaolong Qin
- 2018–2020 **Master of Applied Mathematics**, *Institute of Fundamental and Frontier Sciences*, University of Electronic Science and Technology of China, China.
Co-supervisor: Prof. Xiaolong Qin and Prof. Songxiao Li
- 2014–2018 **Bachelor of Applied Mathematic**, *School of Science*, Southwest Petroleum University, China.

Publications

Journal papers (means Corresponding Author.)*

- JAAC **Bing Tan**, Zheng Zhou, Xiaolong Qin*. Accelerated projection-based forward-backward splitting algorithms for monotone inclusion problems. *J. Appl. Anal. Comput.* 2020, 10(5):2184–2197.
- JNCA **Bing Tan**, Shanshan Xu, Songxiao Li*. Inertial hybrid and shrinking projection algorithms for solving variational inequality problems. *J. Nonlinear Convex Anal.* 2020, 21(10):2193–2206.
- JNCA **Bing Tan**, Shanshan Xu, Songxiao Li*. Inertial shrinking projection algorithms for solving hierarchical variational inequality problems. *J. Nonlinear Convex Anal.* 2020, 21(4):871–884.
- Mathematics **Bing Tan**, Zheng Zhou, Songxiao Li*. Strong convergence of modified inertial Mann algorithms for nonexpansive mappings. *Mathematics* 2020, 8(4), Article ID 462.
- Mathematics **Bing Tan**, Shanshan Xu, Songxiao Li*. Modified inertial hybrid and shrinking projection algorithms for solving fixed point problems. *Mathematics* 2020, 8(2), Article ID 236.
- JANO **Bing Tan***, Shanshan Xu. Strong convergence of two inertial projection algorithms in Hilbert spaces. *J. Appl. Numer. Optim.* 2020, 2(2):171–186.

- COAM Zheng Zhou*, **Bing Tan**, Songxiao Li. A new accelerated self-adaptive stepsize algorithm with excellent stability for split common fixed point problems. *Comput. Appl. Math.* 2020, 39, Article ID 220.
- JAAC Zheng Zhou*, **Bing Tan**, Songxiao Li. An inertial shrinking projection algorithm for split common fixed point problems. *J. Appl. Anal. Comput.* 2020, 10(5):2104–2120.
- AA Jingjing Fan, Xiaolong Qin*, **Bing Tan**. Tseng's extragradient algorithm for pseudomonotone variational inequalities on Hadamard manifolds. *Appl. Anal.* 2020.
doi:10.1080/00036811.2020.1807012.
- JNCA Liya Liu, **Bing Tan**, Sun Young Cho*. On the resolution of variational inequality problems with a double-hierarchical structure. *J. Nonlinear Convex Anal.* 2020, 21(2):377–386.
- Mathematics Yinglin Luo, Meijuan Shang*, **Bing Tan**. A general inertial viscosity type method for nonexpansive mappings and its applications in signal processing. *Mathematics* 2020, 8(2), Article ID 288.

Professional Services

Journal reviewer

- 2020–Now Journal of Nonlinear and Variational Analysis
2020–Now Journal of Nonlinear Functional Analysis

Social service

- 2020–Now zbMATH Reviewer

Memberships

- 2017–Now China Society for Industrial and Applied Mathematics (CSIAM), Student Member
2019–2022 Operations Research Society of China (ORSC), Student Member

Conference

- Oct. 2020 中国运筹学会第十一次全国会员代表大会暨第十五次学术交流会 (The 11th National Member Congress of the Operations Research Society of China and the 15th Academic Exchange Meeting), Hefei, China.
- Jun. 2019 电子科技大学基础与前沿研究院五周年院士高峰论坛 (Academician Summit Forum for the 5th Anniversary of the Institute of Fundamental and Frontier Sciences, University of Electronic Science and Technology of China), Chengdu, China.
- Apr. 2019 电子科技大学基础与前沿研究院五周年院士高峰论坛 (The 12th National Mathematics Optimization Conference of the Operations Research Society of China), Nanjing, China.

Awards

- 2020.9 Special scholarship for postgraduates in science, University of Electronic Science and Technology of China.
- 2019.9 First-class academic scholarship, University of Electronic Science and Technology of China.
- 2018.9 Second-class academic scholarship, University of Electronic Science and Technology of China.
- 2018.6 Outstanding Undergraduate Thesis Award, Southwest Petroleum University.
- 2018.6 Outstanding Graduate Award, Southwest Petroleum University.
- 2015–2018 National Encouragement Scholarship, three times, Sichuan Provincial Department of Education.
- 2017.12 First Prize (1%), China Undergraduate Mathematical Contest in Modeling (CUMCM).
- 2017.4 Meritorious Winner (7%), Mathematical Contest in Modeling (MCM).

Computer skills

MATLAB, L^AT_EX, Microsoft Office.