

# Bing Tan

Ph.D. Candidate

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## Biography

I am a first-year Ph.D. candidate in Mathematical Optimization at University of Electronic Science and Technology of China, advised by Songxiao Li and 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 machine learning. I currently work on designing fast and practical algorithms for convex optimization.

## Research Interests

Optimization algorithms, theory, applications.

Variational inequality, Fixed Point Theory and Applications.

Extragradient method, Tseng splitting method.

## Education

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

## Publications

### Journal papers

- 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.
- 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.
- 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.
- Mathematics **Bing Tan**, Zheng Zhou, Songxiao Li\*. Strong convergence of modified inertial Mann algorithms for nonexpansive mappings. *Mathematics* 2020, 8(4), Article ID 462.

- 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.
- 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.
- 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.

## 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

## Awards

- 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.  
 2014–2018 National Encouragement Scholarship, three times, Southwest Petroleum University.  
 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,  $\text{\LaTeX}$ , Microsoft Office.