

# Tao Li

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<b>Education</b>	<b>PhD student in Electrical Engineering,</b> Research on Reinforcement Learning, Game Theory, Optimization Supervisor: Dr. Quanyan Zhu New York University, NY, US	Expected 2023
	<b>Bachelor of Science in Mathematics,</b> Specialization in Applied Mathematics Honors Thesis: Weighted Inequalities for Some Integral Operators with Rough Kernels in Weighted Morrey Space, advised by Dr. Huoxiong Wu Xiamen University, Fujian, China	Sept. 2014-June 2018
<b>Employment</b>	<b>Research Assistant</b> Department of Electrical and Computer Engineering New York University	Sept. 2018-present
<b>Visiting Position</b>	<b>Visiting Researcher</b> Department of Mathematical and Statistical Sciences, University of Alberta Applied Harmonic Analysis Group Host: Dr. Bin Han	June 2017-Oct. 2017
	<b>Visiting Student</b> St John's College, Cambridge University Host: Dr. Annis May Timpson	Aug. 2016
<b>Research Interests</b>	<ul style="list-style-type: none"><li>• Multiscale methods in Reinforcement Learning</li><li>• Security of Multiagent systems</li><li>• Large scale distributed optimization</li></ul>	
<b>Publication</b>	<b>Tao Li</b> , Quanyan Zhu, “On Convergence Rate of Adaptive Multiscale Value Function Approximation For Reinforcement Learning”, <i>2019 IEEE 28th International Workshop on Machine Learning for Signal Processing (MLSP)</i> (to appear) Bin Han*, <b>Tao Li</b> *, Xiaosheng Zhuang*. “Directional compactly supported box spline tight framelets with simple geometric structure.” <i>Applied Mathematics Letters</i> 91 (2019): 213-219.(*equal contribution)	
<b>Invited Talks</b>	<ul style="list-style-type: none"><li>• Directional Framelets and its Application in Medical Imaging, PIMS-AMI Workshop on Applied Harmonic Analysis, University of Alberta, Aug. 2017</li></ul>	

- Solving PDE using Directional Tensor-Product Wavelets, Seminar series on Numerical PDE, High Performance Computing Center, Xiamen University, Mar. 2018

## **Honors and Awards**

- Best Student Paper Finalist<sup>1</sup>, IEEE MLSP 2019
- Honor Degree of B.Sc in Mathematics, Xiamen University, 2018
- NSERC Mitacs-Globalink Research Award, University of Alberta, 2017
- Academic Excellence Scholarship-first class, Xiamen University, 2016
- First Prize in Undergraduate Mathematical Contest in Modeling, 2016
- First Prize in National Mathematical Competition, 2015
- National Scholarship, Ministry of Education of China, 2015
- The Elite Undergraduate Training Program of Math, Ministry of Education of China, 2015-2018

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<sup>1</sup>the award remains to be announced