Yueqi Cao

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EDUCATION

Sep 2018 – Present	Master Candidate in Mathematics, Advisor: Huafei Sun	GPA: 93.28/100
Sep 2014 – Jun 2018	Bachelor of Science in Mathematics and Applied Mathematics	GPA: 93.58/100

STANDARDIZED TESTS

TOEFL: 107 (R:29 L:28 S:23 W:27)	Test Date: 09/26/2020
GRE: 326+4.0 (V:156 Q:170 AW:4.0)	Test Date: 06/27/2020
GRE Math Subject: 930 (97%)	Test Date: 10/26/2019

PUBLICATIONS

2020

† J.Jin, S.Zhang, **Y.Cao**, E.Zhang, H.Sun, Rigid Shape Registration Based on Extended Hamiltonian Learning, *Entropy*. [published]

† Y.Wang, H.Sun, **Y.Cao**, S.Zhang, Torsion Discriminance for Stability of Linear Time-Invariant Systems, *Mathematics*. [published]

† N.W.Aung, **Y.Cao**, S.Zhang, H.Sun, The Geometric Approach of Riccati Equations, *Transactions of Beijing Institute of Technology (in Chinese)*. [published]

2019

† **Y.Cao**, D.Li, H.Sun, A.H.Assadi, S.Zhang, Efficient Weingarten Map and Curvature Estimation on Manifolds. [preprint]

2018

† Y.Wang, H.Sun, Y.Song, **Y.Cao**, S.Zhang, Description of Stability for Two and Three-Dimensional Linear Time-Invariant Systems Based on Curvature and Torsion. [preprint]

CONFERENCES

2019

† **Y.Cao**, S.Zhang, F.Yan, W.Li, F.Sun, H.Sun, Unsupervised Environmental Sound Classification Based On Topological Persistence, *IEEE International Conference on Signal, Information and Data Processing 2019*. [published]

† S.Zhang, **Y.Cao**, W.Li, F.Yan, Y.Luo, H.Sun, A New Riemannian Structure in SPD(n), *IEEE International Conference on Signal, Information and Data Processing 2019*. [published]

2018

† **Y.Cao**, Data Science from a Topological Viewpoint, *The Second International Conference on Mathematical Characterization, Analysis and Applications of Complex Information*, Beijing, China. [slides]

2017

† A.Xiong, A.H.Assadi, **Y.Cao**, Calculating Persistence Homology of Attractors in High-Dimensional Chaotic Systems. *2017 International Conference on Computational Science and Computational Intelligence*. [published]

PROFESSIONAL EXPERIENCES

† **Beijing Key Laboratory on Mathematical Characterization, Analysis, and Applications of Complex Information (MCAACI)**

May 2015 – Present   Research Assistant   Director: Huafei Sun

† **National Natural Science Foundation of China (NSFC)** *No. 61179031*

Oct 2014 – Dec 2015   Research Assistant   Director: Huafei Sun

† **National Natural Science Foundation of China (NSFC)** *No. 11971056*

Jan 2020 – Dec 2023   Research Assistant   Director: Yuxing Deng

† **Beijing Institute of Technology**

Aug 2019 – Jan 2020   Teaching Assistant   Course: Mathematical Analysis

Aug 2018 – Jun 2019   Teaching Assistant   Course: Linear Algebra

HONORS AND AWARDS

† **2020** Second Prize of CASC Scholarship, *China Aerospace Science and Technology Corporation*

† **2020** Excellent Graduate Student Cadre, *Beijing Institute of Technology*

† **2020** Grand Prize of Academic Scholarship for Graduate Students, *Beijing Institute of Technology*

† **2019** National Scholarship for Graduate Students, *Ministry of Education of the People's Republic of China*

† **2019** Excellent Graduate Student, *Beijing Institute of Technology*

† **2019** First Prize of Academic Scholarship for Graduate Students, *Beijing Institute of Technology*

† **2017** Second Prize of Innovation Scholarship of Industry and Information Technology of People's Republic of China, *Ministry of Industry and Information Technology of the People's Republic of China* [website]

† **2017** Winning Prize of Geometry and Topology in 8th S.T.Yau College Student Mathematics Contests, *S.T.Yau College Student Mathematics Contests* [website]

† **2017** Winning Prize of Team in 8th S.T.Yau College Student Mathematics Contests, *S.T.Yau College Student Mathematics Contests* [website]

† **2017** Third Prize of CASC Scholarship, *China Aerospace Science and Technology Corporation*

† **2016** Grand Prize in 1st Excellence 9 College Student Mathematics Contest, *Excellence 9 College Student Mathematics Contest* [website]

† **2016** Second Prize in CUMCM-2016 (Contemporary Undergraduate Mathematical Contest in Modeling), *China Society for Industrial and Applied Mathematics (CSIAM)* [website]

† **2016** Second Prize of Innovation Scholarship of Industry and Information Technology of People's Republic of China, *Ministry of Industry and Information Technology of the People's Republic of China* [website]

† **2016 & 2015** Dwen Scholarship, *Beijing Dwin Technology Co.,Ltd.*

† **2016 & 2015** Third Prize of Mathematics Competition of Chinese College Students, *The Chinese Mathematics Competitions (CMC)*

† **2015** Third Prize of APMCM (Asia-Pacific Mathematical Contest in Modeling), *Multi-universities Mathematical Modeling Association* [website]

† **2014–2018** First Prize of Undergraduate Student Scholarship, five times; Second Prize of Undergraduate Student Scholarship, three times, *Beijing Institute of Technology*