

Chung-En Tsai

Office: R407, Der-Tien Hall, National Taiwan University, Taipei, Taiwan
Email: chungentsai@ntu.edu.tw
Links: Personal website, Google scholar, Github, LinkedIn

RESEARCH INTERESTS

Learning theory, optimization (convex, non-convex, combinatorial), dynamical systems, and numerical analysis.

EDUCATION

National Taiwan University (NTU) , Taipei, Taiwan	Sep 2019 — Jun 2023
B.S. in Computer Science and Information Engineering (CSIE)	GPA: 4.23/4.30
Minister of the Academic Department of the 44th NTU CSIE Student Council	Rank: 5/123

ACADEMIC EXPERIENCE

Laboratory of Learning Theory and Optimization Methods, NTU	Taipei, Taiwan
<i>Research Assistant</i>	Aug 2023 — Present
<i>Teaching Assistant of CSIE5062: Online Convex Optimization</i>	Sep 2023 — Dec 2023
<i>Undergraduate Research Assistant</i>	Sep 2021 — Jul 2023
<i>Teaching Assistant of CSIE5002: Prediction, Learning, and Games</i>	Feb 2023 — Jun 2023
Advisor: Prof. Yen-Huan Li	

Mathematics Division, National Center for Theoretical Sciences	Taipei, Taiwan
<i>Undergraduate Research Assistant</i>	Sep 2022 — Jun 2023
Advisor: Prof. Chun-Hsiung Hsia	

Institute of Information Science, Academia Sinica	Taipei, Taiwan
<i>Summer Research Intern</i>	Jul 2022 — Aug 2022
Advisor: Prof. Kai-Min Chung	

AWARDS

The Mathematical Society of the Republic of China	Taipei, Taiwan
<i>Undergraduate Long-term Research Award</i>	Jan 2024
Department of CSIE, NTU	Taipei, Taiwan
<i>Undergraduate Research Award</i>	Jul 2022, Jul 2023
<i>Dean's List</i>	Jul 2020, Dec 2022

PUBLICATIONS

Conference Papers

1. Chung-En Tsai, Hao-Chung Cheng, and Yen-Huan Li. Online self-concordant and relatively smooth minimization, with applications to online portfolio selection and learning quantum states. In *Proc. 34th Int. Conf. Algorithmic Learning Theory (ALT)*, pages 1481–1483, 2023
2. Chung-En Tsai, Hao-Chung Cheng, and Yen-Huan Li. Faster stochastic first-order method for maximum-likelihood quantum state tomography. In *Int. Conf. Quantum Information Processing (QIP)*, 2023
3. Chung-En Tsai, Ying-Ting Lin, and Yen-Huan Li. Data-dependent bounds for online portfolio selection without Lipschitzness and smoothness. In *Conf. Neural Information Processing Systems (NeurIPS)*, 2023
4. Chung-En Tsai, Hao-Chung Cheng, and Yen-Huan Li. Improved dimension and sample size scalability for maximum-likelihood state tomography and approximating PSD permanents. In *Int. Conf. Quantum Information Processing (QIP)*, 2024
5. Chung-En Tsai, Hao-Chung Cheng, and Yen-Huan Li. Fast minimization of expected logarithmic loss via stochastic dual averaging. In *Int. Conf. Artificial Intelligence and Statistics (AISTATS)*, 2024