Kevin Zhou

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Education

Stanford University (expected) 2019 – 2024
PhD in Physics

Oxford University (New College) 2018 – 2019
MSc in Mathematical and Theoretical Physics with distinction

Cambridge University (St. John's College) 2017 – 2018
Master of Advanced Study in Mathematics with distinction

Massachusetts Institute of Technology 2013 – 2017
Bachelor of Science in Physics and Mathematics

Publications

5. A. Berlin, R. T. D'Agnolo, S. A. R. Ellis, K. Zhou, *Heterodyne Broadband Detection of Axion Dark Matter*, in review
4. A. Berlin, R. T. D'Agnolo, S. A. R. Ellis, C. Nantista, J. Neilson, P. Schuster, S. Tantawi, N. Toro, K. Zhou, *Axion Dark Matter Detection by Superconducting Resonant Frequency Conversion*, JHEP (2020)
3. C. Frye, A. Larkoski, J. Thaler, K. Zhou, *Casimir Meets Poisson: Improved Quark/Gluon Discrimination with Counting Observables*, JHEP (2017)
2. B. Elder, M. Procura, J. Thaler, W. Wallewijn, K. Zhou, *Generalized Fragmentation Functions for Fractal Jet Observables*, JHEP (2017)
1. J. Horowitz, K. Zhou, J. England, *Minimum Energetic Cost to Maintain a Target Nonequilibrium State*, Phys. Rev. E (2017)

Fellowships and Awards

NSF Graduate Research Fellowship	2017 – 2022
Marshall Scholarship	2017 – 2019
Demuth Prize, New College	2019
Dirac Prize, St. John's College	2018
Finalist, Hertz Fellowship	2017
Joel Matthew Orloff Award for Outstanding Research, MIT	2017
Honorable Mention, Putnam Mathematical Competition	2016, 2017
Gold Medal, International Physics Olympiad	2012, 2013
Winner, USA Junior Mathematical Olympiad	2011

Professional Experience

Dropbox, Software Engineering Intern Summer 2015

- Developed new feature-gating and AB testing system for Dropbox apps and website

- Improved data pipelines to enable real-time user targeting for marketing campaigns

Facebook, Software Engineering Intern — Summer 2014

- Designed and built search ranking evaluation tool, achieving 5x speedup for results
- Developed search quality metrics using machine learning and human opinion data

Activities

Coach, U.S. Physics Olympiad — 2015 – 2019

- Mentored and motivated students at yearly training camps
- Developed and taught classes on wave mechanics, problem solving, and lab skills
- Wrote, edited, and graded national Olympiad problems

Vice President, Society of Physics Students — 2014 – 2016

- Directed seminar on advanced mathematical methods in physics
- Taught introductory high school classes on quantum cryptography, dimensional analysis, chirality, and particle physics
- Delivered lightning lectures and research talks to undergraduates