

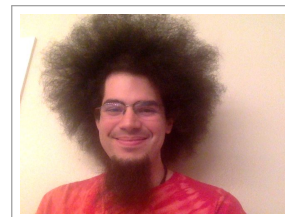
# Jalex Stark

## Curriculum Vitae

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Updated April 2018

### Education

2013–2018 **B.Sc. Mathematics**, *California Institute of Technology*, Pasadena, GPA: 3.3/4.3.

### Papers

Oct 2017 **Robust Self-testing for Linear Constraint Games**, with *Andrea Coladangelo*, Preprint arXiv:1709.09267, QIP 2018.

Sep 2017 **Separation of finite and infinite-dimensional quantum correlations, with infinite question or answer sets**, with *Andrea Coladangelo*, Preprint arXiv:1708.06522.

### Talks

Jan 2018 **Robust Self-testing for Linear Constraint Games**, *QIP 2018*, Based on arXiv:1709.09267.

Oct 2017 **Robust Self-testing for Linear Constraint Games**, *Mellon Mays Western Regional Conference*, Based on arXiv:1709.09267.

Apr 2017 **Robust Rigidity of the Magic Square Game**, *UT Austin, Aaronson group meeting*.

### Research Funding

Spring 2017 – **Research Assistant, Computing and Mathematical Sciences**, *Caltech*.

Spring 2018 Supported by Thomas Vidick through NSF CAREER Grant CCF-1553477

Summer 2017 **Mellon Mays Undergraduate Researcher**, *Caltech*, Advised by Thomas Vidick.

Summer 2016 **Mellon Mays Undergraduate Researcher**, *Caltech*, Advised by Martino Lupini.

Nov 2016 **Invited Participant, Focused Research Group**, *Banff International Research Station*. QMA-completeness and probabilistic constructions for noncommutative graph homomorphisms.

### Teaching

Jul 2017 **Pseudotelepathy via Group Representations**, *Canada/USA Mathcamp*, 5 days. Based on arXiv:1708.06522

Jul 2015 **Ordinal Arithmetic**, *Canada/USA Mathcamp*, 3-day mini-course. Notes available at my website.

- Fall 2017 **Teaching Assistant Ph/CS 219, Quantum Computation**, *Caltech*.
- Fall 2016 **Teaching Assistant CS/Ph 120, Quantum Cryptography MOOC**, *Caltech*.
- Spring 2016 **Teaching Assistant for CS 101, Special Topics: Modern Cryptography**, *Caltech*.
- Spring 2015 **Teaching Assistant for CS 115, Programming in Haskell**, *Caltech*.
- Summer 2015 **Teaching Assistant for Ma0, Introduction to Proofs**, *Caltech*.

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## Other Work

- Summer 2016 **Counselor**, *Bridge to Enter Advanced Mathematics*.  
Taught three weeks of proof-based mathematics to underserved New York City seventh graders.
- Summer 2014 **Junior Counselor**, *Canada/USA Mathcamp*.
- Summer 2015 (See Teaching.) With other undergrads, ran logistics of five-week camp for high schoolers. Sat
- Summer 2017 on mentor hiring and student admissions committees, contributed to the 2015 qualifying exam.
- Aug 2014– **MATHCOUNTS Math Club Director**, *Walter Reed Middle School*.
- Apr 2017 Taught after school once per week, hired other Caltech undergrads to expand program.

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## Service

- Apr 2015 – **Academic Coordinator**, *Caltech Undergraduate Math Club*.
- Apr 2017 Recruited 15 different undergrad speakers over the course of my tenure. For each speaker, heard a practice talk and gave constructive feedback before their presentation to Caltech undergrads.
- Fall 2015, **Director**, *Caltech Harvey Mudd Math Competition*.
- Fall 2016 As Director, fully organized a one-day math competition for 300 high school students from the west coast of the US and from China. Managed problem-writing and campus relations, etc.
- Apr 2015 – **Secretary**, *Caltech Board of Control*.
- Mar 2016 Oversaw half of all academic dishonesty cases among Caltech undergraduates. Wrote official recommendations to the Dean's Office, according to guidelines of the Office of General Counsel.