

Eric Severson

PhD Candidate, Graduate Group in Applied Mathematics
University of California, Davis

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RESEARCH INTERESTS

Distributed Computing, Molecular Computing, Stochastic Processes

EDUCATION

UC Davis - PhD In Applied Mathematics

2016 - Present
Advisor: Dave Doty

UC Berkeley - BS in Applied Mathematics

Spring 2016

AWARDS

- William Karl Schwarze Scholarship in Mathematics (2020), UC Davis
- Percy Lionel Davis Award for Excellence in Scholarship in Mathematics (2015-2016), UC Berkeley
- 2015 William Lowell Putnam Mathematical Competition: Top 200 (Of 4275 Competitors)

PUBLICATIONS

David Doty, Masha Eftekhari, Eric Severson. A stable majority population protocol using logarithmic time and states. Technical Report 1907.06068, arXiv, 2020.

Talley Amir, James Aspnes, David Doty, Mahsa Eftekhari, Eric Severson. Message complexity of population protocols. In DISC 2020: *International Symposium on Distributed Computing*.

Janna Burman, David Doty, Thomas Nowak, Eric Severson, and Chuan Xu. Efficient self-stabilizing leader election in population protocols. Technical Report 1907.06068, arXiv, 2019.

Eric Severson, Dave Doty, and David Haley. Composable Computation in Discrete Chemical Reaction Networks. PODC 2019: *Symposium on Principles of Distributed Computing*, (Toronto, Canada, Jul 29-Aug 2, 2019).

TEACHING EXPERIENCE

As an instructor (AI):

- Number Theory (Math 115A) - Summer 2020
- Combinatorics (Math 145A) - Summer 2019
- Vector Calculus (Math 21D) - Fall 2018
- Partial Derivatives and Series (Math 21C) - Summer 2017

As a teaching assistant (TA):

- Theory of Molecular Computation (ECS 289A) - Winter 2021
- Graduate Theory of Computation (ECS 220) - Spring 2020
- Stochastic Processes (Math 135B) - Spring 2018
- Integral Calculus (Math 21B) - Winter 2018
- Differential Calculus (Math 21A) - Fall 2017
- Probability (Math 135A) - Fall 2017
- Intro to Abstract Math (Math 108) - Winter and Spring 2017
- Calculus for Biology and Medicine (Math 17C) - Fall 2016

Tutor, UC Berkeley Student Learning Center - Spring 2016

Lego Engineering Instructor, Play-Well TEKnologies - Summer 2012 to Summer 2014