Eric Severson

PhD Candidate, UC Davis Graduate Group in Applied Mathematics

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Website: https://eric-severson.netlify.app/

Research interests Distributed Computing, Molecular Computing, Stochastic Processes

Education UC Davis Davis, CA

PhD in Applied Mathematics Fall 2016 – Present

Advisor: Professor David Doty.

GPA: 3.94

UC Berkeley Berkeley, CA
BS in Applied Mathematics Spring 2016

GPA: 4.0

Awards William Karl Schwartz Scholarship: for outstanding mathematical scholarship

and exceptional promise of making a strong professional contribution as a mathematics teacher UC Davis, 2020

Percy Lionel Davis Award for Excellence in Mathematics UC Berkeley, 2016

William Lowell Putnam Mathematical Competition:

Top 200 (Of 4275 Competitors) 2015

Publications A stable majority population protocol using logarithmic time and

states.

David Doty, Masha Eftekhari, Eric Severson. *Technical Report 1907.06068, arXiv, 2020.*

Message complexity of population protocols.

Talley Amir, James Aspnes, David Doty, Mahsa Eftekhari, Eric Severson.

DISC 2020: International Symposium on Distributed Computing.

Efficient self-stabilizing leader election in population protocols.

Janna Burman, David Doty, Thomas Nowak, Eric Severson, and Chuan Xu.

Technical Report 1907.06068, arXiv, 2019.

Composable Computation in Discrete Chemical Reaction Networks.

Eric Severson, Dave Doty, and David Haley.

Distributed Computing, 2020 (Journal).

PODC 2019: Symposium on Principles of Distributed Computing (Conference).

Teaching experience Associate Instructor, Department of Mathematics (UC Davis)

Math 115A: Number Theory Summer 2020

Math 145A: Combinatorics Summer 2019

Math 21D: Vector Calculus	Fall 2018
Math 21C: Partial Derivatives and Series	Summer 2017
Teaching assistant, UC Davis	
ECS 289A: Graduate Theory of Molecular Computation	Winter 2021
ECS 220: Graduate Theory of Computation	Spring 2020
Math 135B: Stochastic Processes	Spring 2018
Math 21B: Integral Calculus	Winter 2018
Math 21A: Differential Calculus	Fall 2017
Math 135A: Probability	Fall 2017
Math 108: Intro to Abstract Math	Winter, Spring 2017
Math 17C: Calculus for Biology and Medicine	Fall 2016
Guest lecturer, UC Davis Math Circle	
Gave lessons to a group of talented middle and high school students	
"The Sizes of Infinity"	Spring 2020
"The Game of Nim"	Spring 2018

Lego Engineering Instructor, Play-Well TEKnologies

Tutor, UC Berkeley Student Learning Center

Taught engineering principles using Lego Summer 2012 - Summer 2014 Worked with K-12 students in summer camps and after-school enrichment

Spring 2016