

Jeremy Usatine

Education

Anticipated **Ph.D. in Mathematics**, *Yale University*, New Haven, CT.

Advisor: Sam Payne

May 2014 **B.Sc. in Mathematics**, *Harvey Mudd College*, Claremont, CA.

Graduated with Highest Distinction, Honors in Mathematics, and Honors in Humanities, Social Sciences, and the Arts

Thesis: Arithmetical Graphs, Riemann-Roch Structure for Lattices, and the Frobenius Number Problem

Advisor: Dagan Karp

Honors and Fellowships

2014-2019 NSF Graduate Research Fellowship

2013 Honorable Mention, Giovanni Borrelli Mathematics Fellowship, Harvey Mudd College

2013 Top 500 in 2012 Putnam Competition

Publications

A Topological Structure on Certain Initial Algebras (with Sarah Anderson, Andrew Smith, Peter Stewart, and Mohammed Tesemma). *Topology and its Applications*, 180(0):199-208, 2015.

Barred Preferential Arrangements (with Connor Ahlback and Nicholas Pippenger). *Electr. J. Comb.*, 20(2):P55, 2013.

Efficient Algorithms for Zeckendorf Arithmetic (with Connor Ahlback, Christiane Frougny, and Nicholas Pippenger). *Fibonacci Quarterly*, 51(3):249-255, 2013.

Teaching

2015 **Mentor for Summer Undergraduate Math Research at Yale**, *Yale University*.
Mentored undergraduate research as part of SUMRY program

2012-2014 **Facilitator for Academic Excellence Program**, *Harvey Mudd College*.
Conducted group tutoring workshops for calculus, multivariable calculus, linear algebra, differential equations, probability and statistics, and discrete mathematics

2011 **Engineering 11 Teaching Team**, *Harvey Mudd College*.
○ Spring 2011: part of team that updated freshman robotics course for following Fall
○ Fall 2011: tutored and graded as part of the teaching team