

# Ravi Fernando

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CONTACT INFORMATION	Ravi Fernando c/o Department of Mathematics University of California, Berkeley 970 Evans Hall Berkeley, CA 94720-3840	<a href="mailto:fernando@berkeley.edu">fernando@berkeley.edu</a> (510) 883-3439
RESEARCH INTERESTS	The de Rham-Witt complex, crystalline cohomology and other $p$ -adic cohomology theories, and other topics in algebraic geometry in mixed and positive characteristic	
EDUCATION	<b>University of California, Berkeley</b> Ph.D. Candidate, Mathematics (2014 - present) <ul style="list-style-type: none"><li>• Advisor: Martin Olsson</li></ul> <b>Stanford University</b> B.S. in Mathematics, June 2014 <ul style="list-style-type: none"><li>• With university distinction</li><li>• Minor in computer science</li></ul>	
PAPERS	<ol style="list-style-type: none"><li>1. <b>Saturated de Rham-Witt complexes with unit-root coefficients</b> (PhD thesis), in preparation.</li><li>2. <b>Dieudonné complexes in an abelian category</b> (joint with Joe Stahl), in preparation.</li><li>3. <b>Restrictions on Weil polynomials of Jacobians of hyperelliptic curves</b> (joint with Edgar Costa, Ravi Donepudi, Valentijn Karemaker, Caleb Springer, and McKenzie West). In <i>Arithmetic geometry, number theory, and computation</i> (Simons Symposia); also available at <a href="https://arxiv.org/abs/2002.02067">https://arxiv.org/abs/2002.02067</a>.</li><li>4. <b>On an Inequality of Dimension-like Invariants for Finite Groups</b> (undergraduate research), available at <a href="https://arxiv.org/abs/1502.00360">https://arxiv.org/abs/1502.00360</a>.</li></ol>	
INVITED TALKS	Spring 2019	Stanford student algebraic geometry seminar
	Spring 2018	Berkeley Undergraduate Number Theory Conference
TEACHING EXPERIENCE	Summer 2015	Instructor, Calculus II
	Fall 2017	Instructor, Putnam exam seminar
	Fall 2021	Teaching assistant, Calculus I
	(6×)	Teaching assistant, Calculus II
	Fall 2015	Teaching assistant, Linear algebra and differential equations
	(3×)	Teaching assistant, Discrete math
AWARDS AND HONORS	2015–16	UC Berkeley Outstanding Graduate Student Instructor award
	2017	Invited by a student to the TAAP scholars Professors Dinner <ul style="list-style-type: none"><li>• Scholarship program for low-income, first-generation, and underrepresented students</li></ul>

ACTIVITIES ORGANIZED	Spring	2021	Arithmetic geometry RTG workshop (Jennifer Balakrishnan working session), UC Berkeley (online)
	Fall	2020	Berkeley Undergraduate Number Theory Conference (online)
	Spring	2019	UC Berkeley student number theory seminar
	Spring	2018	Arithmetic geometry RTG workshop (Max Lieblich working session), UC Berkeley
	Spring	2016	UC Berkeley student arithmetic geometry seminar
CONFERENCES AND WORKSHOPS ATTENDED	Summer	2021	PCMI session on number theory informed by computation (online)
	Spring	2021	Arithmetic geometry RTG workshop, UC Berkeley (online)
	Spring	2020	Arizona Winter School, University of Arizona
	Summer	2019	Explicit methods in arithmetic geometry in characteristic $p$ (AMS MRC), Rhode Island
	Spring	2019	Western Algebraic Geometry Symposium, UC Berkeley
	Spring	2019	Arizona Winter School, University of Arizona
	Summer	2018	Witt vectors, deformations, and absolute geometry, University of Vermont
	Spring	2018	Arithmetic geometry RTG workshop, UC Berkeley
	Spring	2018	Arizona Winter School, University of Arizona
	Spring	2017	Arizona Winter School, University of Arizona
	Summer	2016	Higher Dimensional Algebraic Geometry, University of Utah
Spring	2015	Western Algebraic Geometry Symposium, UC Davis	
OUTREACH	2019–		Mathematical advisor, PrimeGrid (distributed computing project)
	2018–		Volunteer, Julia Robinson Mathematics Festival
	2018		Presenter, Celebration of Mind (recreational math festival)
	2015–		Active user on Math StackExchange, > 7000 reputation
MISC SERVICE			Have served as a referee for publication
SUMMER WORK EXPERIENCE	2017		Graduate assistant, Cornell SPUR (undergraduate research) <ul style="list-style-type: none"> <li>• Generating sequences of finite groups, assisting Keith Dennis</li> </ul>
	2011-12, 2014		Counselor, Ross Mathematics Program <ul style="list-style-type: none"> <li>• Summer number theory camp at the Ohio State University</li> </ul>
INDEPENDENT STUDY ADVISED	Spring 2016		Finite group representations and permutation groups
PUTNAM EXAM	2011	N1 (8th place)	
	2013	N2 (23rd place), part of Stanford's 3rd place team	
	2017	Deputy organizer (under Olga Holtz) for Berkeley's 7th place team; wrote Berkeley's mock Putnam exam	
LANGUAGES			English (native), Spanish (intermediate), French (can read mathematical writing)