

Robert J.S. McDonald

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<https://mathrjism.com>

Education

University of Connecticut <i>Doctoral Program, Ph.D. in Mathematics</i> Thesis Advisor: Álvaro Lozano-Robledo Thesis Title: <i>Torsion Subgroups of Elliptic Curves over Function Fields</i> Research Interests: algebraic number theory, arithmetic geometry, elliptic curves, Galois representations	Storrs, CT 2013 – 2019
Eastern Connecticut State University <i>Undergraduate Program, B.S. in Mathematics</i>	Willimantic, CT 2006 – 2007, 2011 – 2013
Quinebaug Valley Community College <i>Undergraduate program, A.S. in Engineering Science</i>	Danielson, CT 2008 – 2011

Honors

University of Connecticut: Louis J. DeLuca Outstanding Teaching Assistant Award	April 2019
University of Connecticut: Summer Research Fellowship	March 2018
University of Connecticut: Doctoral Dissertation Fellowship	December 2017
University of Connecticut: Connie Strange Graduate Community Award	May 2016

Teaching Experience

Yale University <i>Lecturer</i> Fall 2019: Integral Calculus Fall 2019: Multivariable Calculus Spring 2020: Introduction to Functions of Several Variables Spring 2020: Introduction to Functions and Calculus II Fall 2020: Introduction to Functions and Calculus I	New Haven, CT Fall 2019 – Present
University of Connecticut <i>Instructor & Teaching Assistant</i> Instructor Summer 2015: BRIDGE Calculus Spring 2016: Calculus for Business Fall 2016: Calculus for Business Fall 2017: Calculus for Business Spring 2018: Calculus for Business Fall 2018: Applied Linear Algebra	Storrs, CT 2013 – Present Teaching Assistant Fall 2013: Calculus II Spring 2014: Calculus II Fall 2014: Calculus II Spring 2015: Calculus I Fall 2015: Calculus II Summer 2016: CTNT Summer School GA Summer 2016: Calculus for Business Spring 2017: Calculus II Summer 2018: CTNT Summer School GA

Papers (available at <https://mathrjsm.com/#research>)

Torsion Subgroups of Elliptic Curves over Function Fields of Genus 0

(in [Journal of Number Theory Volume 193](#))

Torsion Subgroups of Elliptic Curves over Function Fields of Genus 1

(submitted, current draft: <https://mathrjsm.com/TorsionFunctionFieldsGenus1.pdf>)

Talks Given

Seminar Talks

Describing all Pythagorean Triples <i>Undergraduate Math Club Talk, University of Connecticut</i>	March 11, 2019
Torsion of Elliptic Curves over Function Fields of Genus 0 and 1 <i>Number Theory Seminar, Wesleyan University, CT</i>	November 22, 2019
Torsion of Elliptic Curves over Function Fields of Genus 0 and 1 <i>Five College Number Theory Seminar, Amherst College</i>	March 5, 2019
Torsion Subgroups of Elliptic Curves over Function Fields <i>Algebra Seminar, University of Connecticut</i>	November 28, 2018
Torsion Subgroups of Elliptic Curves over Function Fields <i>Number Theory Seminar, Boston University</i>	December 11, 2017
ABC and Fermat for Polynomials <i>SIGMA Seminar, University of Connecticut</i>	April 1, 2017
The Fermat Equation for Polynomials <i>Undergraduate Math Club Talk, University of Connecticut</i>	Spring 2017

Conference Talks

Torsion Subgroups of Elliptic Curves over Function Fields of Genus 1 <i>AMS Sectional Meeting, Hartford, CT</i>	April 14, 2019
Torsion Subgroups of Elliptic Curves over Function Fields <i>2019 Joint Math Meetings, Baltimore, MD</i>	January 19, 2019
Torsion Subgroups of Elliptic Curves over Function Fields <i>2018 Automorphic Forms Workshop, Tufts University</i>	March 20, 2018
Torsion Subgroups of Elliptic Curves over Function Fields of Genus 0 <i>Maine-Québec Number Theory Conference, University of Maine</i>	October 14, 2017

Conferences and Workshops Attended

Connecticut Summer School in Number Theory – Research Conference <i>Online through University of Connecticut</i>	June 2020
Cross Atlantic Representation Theory and Other topics ONline <i>Online</i>	May 2020
AMS Sectional Meeting <i>University of Connecticut Hartford, Hartford, CT</i>	April 2019
Northeast Consortium for Quantitative Literacy XXII Meeting <i>Bay Path University, Longmeadow, MA</i>	March 2019
2019 Joint Math Meetings <i>Baltimore, MD</i>	January 2019
Connecticut Summer School in Number Theory (CTNT) <i>University of Connecticut, Storrs, CT</i>	May 2018
Automorphic Forms Workshop <i>Tufts University, Boston, MA</i>	March 2018

Arizona Winter School: Iwasawa Theory <i>University of Arizona, Tucson, AZ</i>	March 2018
Maine-Québec Number Theory <i>University of Maine, Orono, ME</i>	October 2017
MSRI Summer School: Automorphic Forms and Langlands Program <i>MSRI, Berkeley, CA</i>	July/August 2017
Seventh Upstate New York Number Theory Conference <i>Binghamton University, Binghamton, NY</i>	May 2017
Arizona Winter School: Perfectoid Spaces <i>University of Arizona, Tucson, AZ</i>	March 2017
Connecticut Summer School in Number Theory <i>University of Connecticut, Storrs, CT</i>	August 2016
Arizona Winter School: Arithmetic Geometry <i>University of Arizona, Tucson, AZ</i>	March 2016
BU/Keio University Workshop 2015 <i>Boston University, Boston, MA</i>	September 2015
Elliptic Curves @ UConn <i>University of Connecticut, Storrs, CT</i>	May 2014
Advanced Technological Education (ATE) 2013 Conference <i>American Association of Community Colleges, Washington DC</i>	Fall 2013

Service

Peer Tutor/ULA Hiring Committee, Yale Math Dept. <i>Coordinator</i>	Spring 2020 – Present
Directed Reading Program, UConn Math Dept. <i>Mentor</i>	Spring 2018 – Spring 2019
Graduate Student Mentor Program, UConn Math Dept. <i>TA Network Coordinator</i>	Summer 2015 – Spring 2019
<i>Mentor</i>	Fall 2014 – Spring 2019
New Teaching Orientation, UConn Math Dept. <i>Speaker/Mentor</i>	Fall 2014 – Fall 2017
Panelist	
Applying to Grad School, Finding an Advisor – <i>CTNT Conference, UConn</i>	June 1, 2018
Fall 2017 Investigations in STEM Forum – <i>Three Rivers Community College</i>	December 4, 2017
Grad Life Q&A – <i>SIGMA Seminar, UConn</i>	February 2, 2017
Choosing a Thesis Advisor – <i>SIGMA Seminar, UConn</i>	April 21, 2016
Studying for Preliminary Exams – <i>SIGMA Seminar, UConn</i>	December 11, 2015
Preparing for Math Graduate School – <i>Math Club, UConn</i>	April 22, 2015
Spring 2014 Investigations in STEM Forum – <i>Quinebaug Valley CC</i>	April 21, 2014
Poster Session, ATE 2013 Conference	October 24, 2013

References

Keith Conrad, kconrad@math.uconn.edu
 Álvaro Lozano-Robledo, alvaro.lozano-robledo@uconn.edu
 Amit A. Savkar, amit.savkar@uconn.edu (Teaching Reference)
 Brett C. Smith, brett.c.smith@yale.edu (Teaching Reference)