Robert J.S. McDonald – Curriculum Vitae

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Education

University of Connecticut — **Storrs, CT**
Doctoral Program, Ph.D. in Mathematics — 2013 – 2019
Thesis Advisor: Álvaro Lozano-Robledo
Thesis Title: *Torsion Subgroups of Elliptic Curves over Function Fields*
Research Interests: algebraic number theory, arithmetic geometry, elliptic curves, Galois representations

Eastern Connecticut State University — **Willimantic, CT**
Undergraduate Program, B.S. in Mathematics — 2006 – 2007, 2011 – 2013

Quinebaug Valley Community College — **Danielson, CT**
Undergraduate program, A.S. in Engineering Science — 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 — **New Haven, CT**
Lecturer — Fall 2019 – Present
Fall 2019: Integral Calculus
Fall 2019: Multivariable Calculus
Spring 2020: Introduction to Functions of Several Variables
Spring 2020: Introduction to Functions and Calculus II
Summer 2020: Approximation and Prediction 1
Fall 2020: Introduction to Functions and Calculus I

University of Connecticut — **Storrs, CT**
Instructor & Teaching Assistant — 2013 – Present

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

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 March 11, 2020
Undergraduate Math Club Talk, University of Connecticut

Torsion of Elliptic Curves over Function Fields of Genus 0 and 1 November 22, 2019
Number Theory Seminar, Wesleyan University, CT

Torsion of Elliptic Curves over Function Fields of Genus 0 and 1 March 5, 2019
Five College Number Theory Seminar, Amherst College

Torsion Subgroups of Elliptic Curves over Function Fields November 28, 2018
Algebra Seminar, University of Connecticut

Torsion Subgroups of Elliptic Curves over Function Fields December 11, 2017
Number Theory Seminar, Boston University

ABC and Fermat for Polynomials April 1, 2017
SIGMA Seminar, University of Connecticut

The Fermat Equation for Polynomials Spring 2017
Undergraduate Math Club Talk, University of Connecticut

Conference Talks

Torsion Subgroups of Elliptic Curves over Function Fields of Genus 1 April 14, 2019
AMS Sectional Meeting, Hartford, CT

Torsion Subgroups of Elliptic Curves over Function Fields January 19, 2019
2019 Joint Math Meetings, Baltimore, MD

Torsion Subgroups of Elliptic Curves over Function Fields March 20, 2018
2018 Automorphic Forms Workshop, Tufts University

Torsion Subgroups of Elliptic Curves over Function Fields of Genus 0 October 14, 2017
Maine-Québec Number Theory Conference, University of Maine

Conferences and Workshops Attended

Connecticut Summer School in Number Theory – Research Conference June 2020
Online through University of Connecticut

Cross Atlantic Representation Theory and Other topics ONline May 2020
Online

AMS Sectional Meeting April 2019
University of Connecticut Hartford, Hartford, CT

Northeast Consortium for Quantitative Literacy XXII Meeting March 2019
Bay Path University, Longmeadow, MA

2019 Joint Math Meetings January 2019
Baltimore, MD

Connecticut Summer School in Number Theory (CTNT) May 2018
University of Connecticut, Storrs, CT

Automorphic Forms Workshop March 2018
Tufts University, Boston, MA

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

Service

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