

Georgia Harbor-Collins

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HIGHER EDUCATION

Aug. 2022 - Present Ph.D. candidate at the **University of Connecticut (UConn)**.
Ph.D. Advisor: *Keith Conrad*.
Oct. 2021 - June 2022 Part III of the Mathematical Tripos (MASt), **University of Cambridge**.
Oct. 2020 - Oct. 2021 MSc in Pure Mathematics, **Imperial College London**.
Sep. 2017 - June 2020 BSc in Mathematics, **Royal Holloway University of London**.

RESEARCH INTERESTS

Algebraic number theory. In particular, formal groups and p -adic analysis.

MASTER'S DISSERTATION TOPICS

A dissertation on **counting cubic number fields**, for the completion of Part III.
A dissertation on **approximations in valued fields**, for the completion of my Master's degree at Imperial.

WORKSHOPS AND CONFERENCES ATTENDED

Arizona Winter School	07/03/26 - 11/03/26
Project Group (John Voight): Computing Modular Forms. <i>SWC for Arith. Geometry</i> .	
Preliminary Arizona Winter School	22/09/25 - 21/11/25
<i>Virtual program</i> . Topic: Analysis and Implementation of Algorithms in Number Theory.	
Formalizing Class Field Theory	21/07/25 - 25/07/25
<i>Mathematical Institute, University of Oxford</i> .	
The Legacy of John Tate, and Beyond	17/03/25 - 21/03/25
<i>Harvard University</i> .	
Murmurations in Arithmetic Geometry and Related Topics	11/11/24 - 15/11/24
<i>Simons Center for Geometry and Physics, Stony Brook University</i> .	
Preliminary Arizona Winter School	23/09/24 - 22/11/24
<i>Virtual program</i> . Topic: Local Fields.	
Connecticut Summer School in Number Theory (CTNT)	10/06/24 - 16/06/24
<i>University of Connecticut</i> .	
Upstate NY Number Theory Conference	01/04/23 - 02/04/23
<i>University of Rochester</i> .	
Preliminary Arizona Winter School	02/10/23 - 10/11/23
<i>Virtual program</i> . Topic: Elliptic Curves.	

LOCAL TALKS

p-adic Computations in Sage - UConn Number Theory Reading Group.	19/11/25
The Separating Powers Trick - UConn Math Club.	05/11/25
p-adic Fields and the LMFDB - UConn Number Theory Reading Group.	24/09/25
Commuting Polynomials - <i>undergraduate version</i> - Mathematics Continued Conference.	08/03/25
Commuting Polynomials - <i>graduate version</i> - UConn S.I.G.M.A Seminar.	22/11/24
Adele & Idele Class Groups of a Number Field - UConn Number Theory Reading Group.	05/11/24
Commuting Polynomials - <i>undergraduate version</i> - UConn Math Club.	16/10/24

ACADEMIC AWARDS AND ACHIEVEMENTS

Predoctoral Fellowship , <i>University of Connecticut</i> .	2026
CLAS Summer Fellowship , <i>University of Connecticut</i> .	2025
William H. Ezell Scholarship , <i>University of Connecticut</i> .	2025
Math Teaching Innovation Fellowship , <i>University of Connecticut</i> .	2024
IMA Graduate prize for outstanding performance, <i>Institute of Mathematics and its Applications</i> .	2020
Martin-Holloway prize for best single honours finalist in Mathematics, <i>Royal Holloway UoL</i> .	2020
Margaret-Jackson prize for outstanding performance in Pure Mathematics, <i>Royal Holloway UoL</i> .	2019
Principal's Excellence Scholarship , <i>Royal Holloway University of London</i> .	2017

TEACHING EXPERIENCE

Primary Instructor (UConn)	
MATH 1071Q: Calculus for Business and Economics	Fall 2025 - Spring 2026
MATH 1131Q: Calculus I	Fall 2024 - Spring 2025
MATH 1020Q: Problem Solving	Spring 2024
Teaching Assistant (UConn)	
MATH 1132Q: Calculus II	Summer 2025
MATH 1131Q: Calculus I	Fall 2022 - Fall 2023, Summer 2024
Online Tutor	
Tutor for A-Level Maths & Further Maths	May 2021 - August 2022

MENTORSHIP

Directed Reading Program (DRP)	
<i>The DRP pairs undergraduate students with graduate student mentors for semester-long independent study projects. At the end of the semester, the mentee gives a 15-20 minute presentation on a topic related to the project.</i>	
I supervised a DRP project in <i>p</i> -adic Analysis.	Fall 2025
Other Mentorship	
TA Mentor to first year graduate students.	Fall 2024 - Spring 2025

MEMBERSHIP

CLAS Graduate Student Advisory Committee	Fall 2025 - present
<i>Purpose: to provide the CLAS Dean's Office with feedback on matters concerning graduate students in the College.</i>	
UConn Number Theory Reading Group	Fall 2022 - present
UConn Algebra Seminar Group	Fall 2022 - present
Association for Women in Mathematics (AWM)	Fall 2022 - present

COMPUTER SKILLS

LaTex, PARI, SageMath, Lean 4.