# **David Marcil**

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## **Education**

2025 – present Paul Olum Postdoctoral Scholar, University of Oregon

Mathematics, Algebraic Number Theory.

2019 – 2025 Ph.D., Columbia University

Mathematics, Algebraic Number Theory.

Thesis title: p-adic L-functions for P-ordinary Hida families on unitary groups.

Graduation date: May 2025

2016 – 2019 **B.Sc., McGill University** 

Honours Mathematics, Minor in Computer Science.

Graduation date : May 2019

#### **Research Publications**

# **Journal Articles**

D. Marcil, "Numerical verification of a conjecture of Harris and Venkatesh," *Journal of Number Theory*, vol. 221, 2021, p. 484-495.

### **Preprints**

- T. L. Browning, P. Coupek, E. Eischen, et al., "Constructing vector-valued automorphic forms on unitary groups," arXiv:2408.05198 [math.NT] e-print. Submitted., Aug. 2024.
- D. Marcil, "p-adic L-functions for P-ordinary Hida families on unitary groups," arXiv:2409.03783 [math.NT] e-print., Sep. 2024.

# **Teaching**

Summer 2023

Calculus III

Spring 2022

College Algebra and Analytic Geometry (Pre-Calculus)

# Miscellaneous Experience

#### Invited Research Talks.

November 2024

- University of Michigan. Group, Lie, and Number Theory seminar: *p-adic L-functions* for *P-ordinary Hida families on unitary groups*.
- University of California, Santa Barbara. Seminar on Geometry and Arithmetic : p-adic L-functions for P-ordinary Hida families on unitary groups.
- University of Utah. Representation Theory / Number Theory Seminar : p-adic L-functions for P-ordinary Hida families on unitary groups.

# Miscellaneous Experience (continued)

October 2024

- Princeton University. PU/IAS Number Theory seminar: p-adic L-functions for P-ordinary Hida families on unitary groups.
- Massachusetts Institute of Technology. MIT Number Theory seminar: p-adic L-functions for P-ordinary Hida families on unitary groups.
- University at Albany. AMS Fall Eastern Sectional Meeting: p-adic L-functions for P-ordinary Hida families on unitary groups.
- Université Laval. Québec-Maine Number Theory conference : p-adic L-functions for P-ordinary Hida families on unitary groups.
- April 2024
- Purdue University. Automorphic Forms and Representation Theory Seminar: *p-adic L-functions for P-ordinary Hida families on unitary groups*.
- February 2024
- Johns Hopkins University. Junior Number Theory Days: p-adic L-functions for P-ordinary Hida families of automorphic representations on unitary groups..
- December 2023
- Princeton University. Monodromy and Its Applications (Pre-workshop for Junior Researchers): Eisenstein measures for P-ordinary representations on unitary groups.

## Seminars organized.

- Student Number Theory seminar on p-adic modular forms and p-adic Lfunctions
- Student Number Theory seminar on higher Hida Theory Co-organized with Michele Fornea.
- Student Number Theory seminar on p-adic automorphic forms on Shimura varieties
  - **Student Number Theory seminar** on eigenvarieties