

David Marcil

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Education

- 2019 – present 📖 **Ph.D., Columbia University**
Mathematics, Algebraic Number Theory.
Thesis title: *p-adic L-functions for P-ordinary Hida families on unitary groups*.
Expected graduation date : May 2025
- 2016 – 2019 📖 **B.Sc., McGill University**
Honours Mathematics, Minor in Computer Science.
Graduation date : May 2019

Research Publications

Journal Articles

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

Preprints

- 1 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.
- 2 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*.
- October 2024 📖 Princeton University. PU/IAS Number Theory seminar : *p-adic L-functions for P-ordinary Hida families on unitary groups*.

Miscellaneous Experience (continued)

- 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.

- 2023 ■ **Student Number Theory seminar** on p -adic modular forms and p -adic L -functions
- 2022 ■ **Student Number Theory seminar** on higher Hida Theory
Co-organized with Michele Fornea.
- 2021 ■ **Student Number Theory seminar** on p -adic automorphic forms on Shimura varieties
- **Student Number Theory seminar** on eigenvarieties