

Education

- University of Notre Dame** **Notre Dame, Indiana**
PhD in Mathematics **August 2015 - May 2020**
- Specialized in model theory. Studied model-theoretic Galois theory, differentially closed fields and the canonical base property.
 - Thesis : "Internality in Families"
 - Supervisor : Anand Pillay
- Université Pierre et Marie Curie** **Paris, France**
Agrégation de Mathématiques **September 2014 - June 2015**
- The most advanced french teaching diploma.
 - Prepared many undergraduate lectures for my examination.
- Université Pierre et Marie Curie** **Paris, France**
Mathematics Undergraduate and Master's degree **September 2009 - June 2014**

Employment

- The Ohio State University** **Columbus, Ohio**
Visiting Assistant Professor **August 2023 - Present**
- The Fields Institute and The University of Waterloo** **Toronto and Waterloo, Ontario**
Postdoctoral researcher **August 2021 - August 2023**
- A joint postdoctoral contract funded by the Fields Institute and the University of Waterloo. The first year at the Fields Institute was part of the "Thematic Program on Trends in Pure and Applied Model Theory" and the "Thematic Program on Tame Geometry, Transseries and Applications to Analysis and Geometry".
- Université Claude Bernard Lyon 1** **Lyon, France**
GeoMod Postdoctoral researcher **September 2020 - August 2021**
- A collaborative research project between France and Germany, with many themes in both pure and applied model theory.
- University of Notre Dame** **Notre Dame, Indiana**
Graduate Student **August 2015 - May 2020**

Publications and Prepublications

- "Splitting differential equations using Galois theory", with Christine Eagles, arXiv:2403.14900
- "Differential-algebraic permutation groups", with James Freitag and Rahim Moosa, arXiv:2307.11220
- "Enriching a predicate and tame expansions of the integers" with Gabriel Conant, Christian D'Elbée, Yatir Halevi and Silvain Rideau-Kikuchi, to appear in Journal of Mathematical Logic
- "Relative Internality and Definable Fibrations", with Anand Pillay and Rémi Jaoui, Advances in Mathematics, Volume 415 (2023)
- "CM-trivial structures without the canonical base property", with Thomas Blossier, Model Theory Vol. 1 (2022), No. 1, 3154.
- "Groupoids and Relative Internality", Journal of Symbolic Logic, 84 (2019), 987-1006

Grants

- AIM-SQuaRES, February 2025: a fully funded week in California to collaborate with 4 other mathematicians. I was in charge of writing the project presentation.

Teaching and mentorship

- The Ohio State University** **Columbus, Ohio**
Lecturer **August 2023 - present**
- Fall 2023, Spring 2024: Foundations of Higher Mathematics

University of Waterloo

Lecturer

- Winter 2023: Calculus 2 for Sciences.
- Fall 2022: Calculus 1 for Engineering.

Université Claude Bernard Lyon 1

Undergraduate Thesis Supervisor

- Supervised the writing of an undergraduate thesis. The theme was approximation of infinite structures by finite ones: ultraproducts, Fraïssé limits and zero-one laws.

University of Notre Dame

Lecturer

- Fall 2019: Beginning Logic, a symbolic logic course for humanities students. Gave three lectures a week, wrote and graded exams.
- Spring 2019: Calculus 2. Gave three lectures a week.

University of Notre Dame

Teaching Assistant

- Spring 2020: Calculus 2. Head TA. Tutorials and flipped classroom, both in person and online. Organized TA meetings and writing of tutorial exercises.
- Fall 2016, 2017, 2018: Calculus 3.

Administration and Service

University of Waterloo, CEMC

Grader for the Euclid Mathematics contest

Waterloo, Ontario

April 2023

University of Waterloo

Organizer of the logic seminar

Waterloo, Ontario

October 2022 - May 2023

City of Toronto

Community Stewardship Volunteer

- Removal of invasive plant species in a park.

Toronto, Ontario

Summer 2022

University of Notre Dame, Science Policy Initiative

Judge in the Northern Indiana Science Fair

Notre Dame, Indiana

February 2020

University of Notre Dame, Graduate Career Center

Graduate Assistant

- Collected and organized data on Notre Dame's graduate students career paths.

Notre Dame, Indiana

October 2019 - April 2020

Notre Dame Mathematics Graduates Students Association

Treasurer

- Organized a weekly seminar for graduate students, allowing them to present their work in a laid back setting.

Notre Dame, Indiana

August 2018 - May 2019

American Red Cross

Disaster Action Team, Financial and Statistical Information

- Collected and analyzed data on home fires in Indiana. Used this to identify target areas for the Red Cross' recruitment efforts.
- Provided direct assistance to victims of domestic fires.

South Bend, Indiana

August 2018 - July 2020

Invited Talks

- April 2024: AMS Spring Central Sectional Meeting, University of Wisconsin-Milwaukee.
- November 2023: Logic seminar, University of Waterloo.
- November 2023: Unlikely intersection seminar, University of Illinois Chicago.
- September 2023: Kolchin Seminar in Differential Algebra, online.
- March 2023: Model theory seminar, University of Notre Dame.
- February 2023: Neostability Workshop, Banff International Research Station.
- November 2022: Geometry and Model Theory Seminar, The Fields Institute.
- October 2021: Logic seminar, University of Illinois at Chicago.
- July 2021: Workshop on Trends in Pure and Applied Model Theory, The Fields Institute.
- November 2019: Kolchin Seminar, CUNY Graduate Center.
- May 2019: Association for Symbolic Logic Annual North American Meeting, Model Theory Special Session. CUNY graduate center.
- October 2018: Neostability Theory Workshop. Casa Matemática Oaxaca.
- December 2017: Logic seminar, University of Waterloo.