Matthew DeVilbiss

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Education

University of Illinois at Chicago   **Chicago, Illinois**
Ph.D. in Mathematics   *2016–present*
In progress

University of Dayton   **Dayton, Ohio**
B.S. in Mathematics   *2012–2016*
Minor in philosophy
Graduated summa cum laude with honors

Employment

Math Circles of Chicago   **Chicago, Illinois**
Instructor   *2017–2020*

University of Illinois at Chicago   **Chicago, Illinois**
Teaching Assistant   *2016–present*

Wright Patterson Air Force Base   **Fairborn, Ohio**
Automated Target Recognition Center Intern   *2015–2016*
2015: Studied methods for automated decision-making using the theory of belief functions over lattices.
2016: Studied models for sensor fusion using techniques in sheaf theory and topological data analysis.

University of Dayton   **Dayton, Ohio**
Calculus Teaching Assistant   *2012–2016*

Publications

Guy Casale, Matthew DeVilbiss, James Freitag, and Joel Nagloo. Strong minimality of automorphic functions. (in preparation)

Matthew DeVilbiss and James Freitag. Generic differential equations are strongly minimal. *arXiv* 2106.02627 (2021) (under revision at *Compositio Mathematica*)

Matthew DeVilbiss, Bradley Fain, Amber, Holmes, Paul Horn, Sonwabile Mafunda, and K. E. Perry. An Extremal Problem on Rainbow Spanning Trees in Graphs. *arXiv* 2008.02410 (2020)

Matthew DeVilbiss, Peter Johnson, and Ryan Matzke. Edge Grundy numbers of the regular Turán graphs. *Bulletin of the Institute of Combinatorics and its Applications*. 84, (2018): 45-52.

Loren Anderson, Matthew DeVilbiss, Sarah Holliday, Peter Johnson, Anna Kite, Ryan Matzke, and Jessica McDonald. The edge Grundy numbers of some graphs. *International Journal of Mathematics and Computer Science*. 12, no. 1 (2017): 13-26.

Matthew DeVilbiss, Bradley Fain, Peter Johnson, and Ryan Matzke. Note on the secure-domination number of a graph. *Bulletin of the Institute of Combinatorics and its Applications*. 74 (2015): 113-19.

Invited Research Talks

Ohio State University Logic Seminar: November 2, 2021
CUNY Kolchin Seminar in Differential Algebra: October 28, 2021
University of Illinois at Chicago Logic Seminar: August 31, 2021

Workshops and Summer Schools

University of Dar es Salaam   **Arusha, Tanzania**
Masamu Advanced Study Institute (MASI) in Mathematical Sciences   *November 2017*
University of Namibia   **Windhoek, Namibia**
Masamu Advanced Study Institute (MASI) in Mathematical Sciences   *November 2015*
Universitat Pompeu Fabra   **Barcelona, Spain**
27th European Summer School in Logic, Language and Information   *August 2015*
University of California Los Angeles Logic Center   **Los Angeles, California**
Undergraduate Summer School   *June – July 2015*
Stellenbosch University   **Stellenbosch, South Africa**
Masamu Advanced Study Institute (MASI) in Mathematical Sciences   *November 2013*
Auburn University   **Auburn, Alabama**
Research Experience for Undergraduates in Algebra and Discrete Mathematics   *June – July 2013*
Advisor: Peter Johnson

Awards

- 2016 NSF Graduate Research Fellowship Program Honorable Mention
- 2016 Senior Award for Academic Excellence in Mathematics, University of Dayton
- 2014 Pi Mu Epsilon Award for excellence among second year students in mathematics, University of Dayton

Professional Service

Organizer   **University of Illinois at Chicago**
Louise Hay Logic Seminar   *2019-2020*
Organizer   **University of Illinois at Chicago**
Graduate Student Conference in Logic XX   *Spring 2019*