Patrick Wynne

Department of Mathematics
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Education

Temple University	August 2012 – May 2016
Bachelor of Science in Mathematics	*Philadelphia, PA, USA*
University of Colorado Boulder	August 2017 – May 2020
Masters of Arts in Mathematics	*Boulder, CO, USA*
University of Colorado Boulder	May 2020 – present
PhD Candidate in Mathematics	*Boulder, CO, USA*

Research

My current research is in Universal Algebra, with a focus on clones, clonoids, and nilpotence of finite algebraic structures.

PhD Dissertation Research – Clonoids and Nilpotent Mal'cev Algebras	2020 – present
Under the supervision of Dr. Peter Mayr	*University of Colorado Boulder*
REU: Graphs, Quadratic Forms, and Period Maps	Summer 2018
Under the supervision of Dr. Sebastian Casalaina-Martin	*University of Colorado Boulder*
REU: Links for Fiber Enforced Elastic Composites	May 2014 – August 2015
Under the supervision of Dr. Yury Grabovsky	*Temple University*

Publications

Peter Mayr and Patrick Wynne – Clonoids between modules.	Accepted 2024.
International Journal of Algebra and Computation	*arXiv:2307.00076*

Talks

The Subpower Membership Problem for Nilpotent Mal'cev Algebras	May 2024
Invited Talk, Association for Symbolic Logic North America Meeting	*Iowa State University, Ames, USA*
The Finite Basis Problem for Nilpotent Mal'cev Algebras	April 2024
BLAST 2024	*University of North Texas, Denton, USA*
Clonoids and Nilpotent Algebras	October 2023
Panglobal Algebra and Logic Seminar	*University of Colorado Boulder, USA*
Clonoids Between Abelian Groups	May 2023
BLAST 2023	*University of North Carolina Charlotte, USA*
On the Number of Clonoids Between Finite Modules	August 2022
BLAST 2022	*Chapman University, California USA*

Nilpotent Extensions of Mal'cev Algebras   June 2022
Equations in Universal Algebra Research Seminar   *Johannes Kepler University, Linz Austria*

Clonoids Between Finite Modules   June 2022
Workshop on General Algebra, AAA 102   *University of Szeged, Hungary*

On Clonoids Between Abelian Groups of Coprime Order   June 2021
Workshop on General Algebra, AAA 101   *University of Novi Sad, Serbia*

Some Finiteness Results in Universal Algebraic Geometry   April 2021
Ulam Seminar   *University of Colorado Boulder, USA*

Post's Correspondence Problem   November 2020
Graduate Student Seminar   *University of Colorado Boulder, USA*

Teaching

Linear Algebra Instructor   Spring 2023
Department of Mathematics   *University of Colorado Boulder*
  - Primary instructor for a 3 credit course on systems of linear equations, matrices, vector spaces, and linear transformations.

Calculus 2 Assistant Coordinator   Spring 2021, Fall 2021, Spring 2022
Department of Mathematics   *University of Colorado Boulder*
  - Assisted in the coordination of around 20 calculus sections.
  - Created projects and activities for in-class use.
  - Created guides to help Instructors and Teaching Assistants teach certain topics.
  - Worked with the course coordinator to write exams.
  - Ran meeting for Teaching Assistants and undergraduate Learning Assistants to prepare them for teaching recitations.

Calculus 1 Instructor   Spring 2019, Fall 2019, Fall 2023
Department of Mathematics   *University of Colorado Boulder*
  - Primary instructor for a 5 credit calculus course on continuity, differentiation, and integration.

Calculus 2 Instructor   Summer 2019, Spring 2020, Fall 2020, Fall 2022, Spring 2024
Department of Mathematics   *University of Colorado Boulder*
  - Primary instructor for a 5 credit calculus course on integration, sequences, and series.

Calculus 1 Teaching Assistant   Spring 2018, Fall 2019
Department of Mathematics   *University of Colorado Boulder*
  - Lead recitations for a calculus course on continuity, differentiation, and integration.

Calculus 2 Teaching Assistant   Fall 2017, Fall 2018
Department of Mathematics   *University of Colorado Boulder*
  - Lead recitations for a calculus course on integration, sequences, and series.

Awards, Scholarships, & Fellowships

William N. Reinhardt Summer Fellowship
University of Colorado Boulder   *2023*

Richard Laver Summer Fellowship
University of Colorado Boulder   *2022*

Burton W. Jones Teaching Excellence Award
University of Colorado Boulder   *2021*

Frances C. Stribic Summer Fellowship
University of Colorado Boulder   *2021*

Sieglinde Talbott Haller Summer Fellowship
University of Colorado Boulder   *2020*

W.E. Briggs Teaching Excellence Award
University of Colorado Boulder   *2018*

Service

Math Department Peer Mentorship Program Mentor
University of Colorado Boulder   *2023 – present*
Graduate Representative to the Graduate Committee
University of Colorado Boulder   *2020 – 2022*