



# Nicholas (Nick) Meyer

Assistant Professor of Mathematics

 <https://nickmeyer.phd>

 [nick@nickmeyer.phd](mailto:nick@nickmeyer.phd)

 [nick5435](#)

 [nicholas-meyer-math](#)

## About me

I am an Assistant Professor of Mathematics at the University of Central Missouri specializing in low-dimensional topology. I'm primarily interested in knot theory and manifold decompositions in dimensions three and four.

## Professional Experience

August 2024 – Present

**Assistant Professor of Mathematics**

*University of Central Missouri*

August 2018 – July 2024

**Graduate Assistant**

*University of Nebraska — Lincoln*

## Education

July 2024

**Ph.D. in Mathematics**

Advised by Dr. Alex Zupan

*University of Nebraska — Lincoln*

May 2020

**M.S. in Mathematics**

*University of Nebraska — Lincoln*

May 2018

**B.S. in Mathematics**

*Winona State University*

Cum Laude with a minor in Physics

## Sample Courses

Topology I and II

Multivariable Calculus

Discrete Mathematics

Foundations of Geometry

Calculus I and II

Number Theory

Graph Theory

College Algebra

## Publications

December 2025

**Extending Fibrations of the 3-Torus and Applications to Torus Surgery in 4-Manifolds.**

Pre-Print. Submitted. [arXiv:2512.17595](#)

July 2024

**Torus Surgery, Fibrations, Multisections, and Spun 4-Manifolds**

PhD Dissertation. [ProQuest](#)

July 2023

**Pants distances of knotted surfaces in 4-manifolds**

Joint work with R. Aranda, S. Blackwell, D. Gulati, H. Karimi, G. Kim, and P. Pongtanapaisan. Submitted. [arXiv:2307.13874](#)

June 2023

**Tri-plane DiagrAmerican Mathematical Society for simple surfaces in  $S^4$**

Joint work with W. Allred, M. Aragón, Z. Dooley, A. Goldman, Y. Lei, I. Martinez, D. Peters, S. Warrander, A. Wright, and A. Zupan. In *Journal of Knot Theory and its Ramifications*. [doi:10.1142/S0218216523500414](#)

## Student Advising and Mentoring

August 2025–May 2026

**Parker Smiley, UCM**

Master's Thesis: *Vanishing Obstructions to Sliceness of Weaving Links*

January 2026 – May 2026

**Bethany Harms, UCM**

Master's Project: *Polynomial Invariants of Knots and Links*

Summer 2021

**Polymath REU Jr. 2021**

Mentored for an undergraduate research program with Alex Zupan on bridge trisections and knotted surfaces.

## Awards and Fellowships

July 2026

**AMS/IMU Early Career Travel Grant**

Selected for a travel grant to attend International Congress of Mathematicians 2026.

April 2025

**Mathematical Association of America Project NExT (Missouri Section)**

Selected for a teaching fellowship through the Missouri section of the Mathematical Association of America.



# Nicholas (Nick) Meyer

Assistant Professor of Mathematics

 <https://nickmeyer.phd>

 [nick@nickmeyer.phd](mailto:nick@nickmeyer.phd)

 [nick5435](#)

 [nicholas-meyer-math](#)

## About me

I am an Assistant Professor of Mathematics at the University of Central Missouri specializing in low-dimensional topology. I'm primarily interested in knot theory and manifold decompositions in dimensions three and four.

## Service to the Profession

April 2026

### Kappa Mu Epsilon Awards Committee

Chair of Awards Committee for the 2026 Regional Convention of Kappa Mu Epsilon at Washburn University

March 2026 – April 2027

### Chair of Mathematical Association of America Missouri Section

Oversight of section activities.

December 2025 – Present

### Reviewer for *Algebraic & Geometric Topology*

July 2025 – June 2028

### Mathematical Association of America Committee for Minority Participation in Mathematics (CMPM)

Member of the Mathematical Association of America CMPM, supporting national efforts to advance diversity, equity, and inclusion in mathematics.

April 2025 – March 2026

### Vice Chair of Mathematical Association of America Missouri Section

Assisted the Chair in overseeing section activities.

March 2025

### Kappa Mu Epsilon Awards Committee

Member of Awards Committee for the 47th Biennial Convention of Kappa Mu Epsilon

## Selected Talks

March 2026

### Telling the Warp from the Weft — Fiberings and Surgery in Dimension 4

University of Arkansas Topology Seminar

March 2026

### Extending Fibrations of the 3-Torus and Applications to Torus Surgery in 4-Manifolds

American Mathematical Society Western Sectional, Boise State University

November 2024

### Morse Theory in Dimensions One and Two

Kappa Mu Epsilon, University of Central Missouri

October 2023

### Torus surgeries on the Hopf surface

American Mathematical Society Fall Central Sectional Meeting, Creighton University

March 2023

### Group Deficiencies from a 4-manifolds perspective

Groups, Semigroups, and Topology Seminar, UNL

September 2022

### The Casson-Gordon signature invariant and sliceness obstructions

Groups, Semigroups, and Topology Seminar, UNL

August 2022

### Slice Knots and Classical Sliceness Obstructions

Graduate Students Talking Groups, Semigroups, and Topology Seminar, UNL

June 2022

### Meier-Zupan Square Links and The Andrews-Curtis Conjecture

New Developments in Four Dimensions, University of Victoria

February 2022

### A quest for residual finiteness: Geometrization and the word problem for 3-manifolds

Groups, Semigroups, and Topology Seminar, UNL

June 2021

### A Geometric Introduction to Heegaard Splittings and Trisections


Graduate Online Seminar Series, Online

## Technologies and Software

  $\text{\LaTeX}$

 Desmos

 Markdown

 Perl


 Word

 Python

 Mathematica

 R

 WeBWorK

 Excel



# Nicholas (Nick) Meyer

Assistant Professor of Mathematics

 <https://nickmeyer.phd>

 [nick@nickmeyer.phd](mailto:nick@nickmeyer.phd)

 [nick5435](#)

 [nicholas-meyer-math](#)

## About me

I am an Assistant Professor of Mathematics at the University of Central Missouri specializing in low-dimensional topology. I'm primarily interested in knot theory and manifold decompositions in dimensions three and four.

## Conference/Workshop Participation

July 2026	<b>International Congress of Mathematicians 2026</b>
April 2026	<b>Kappa Mu Epsilon Regional Convention</b>
March 2026	<b>Mathematical Association of America, Missouri Section Meeting</b>
March 2026	<b>American Mathematical Society, Western Sectional</b>
June 2025	<b>Trisectors Workshop 2025</b>
April 2025	<b>Mathematical Association of America, Missouri Section Meeting</b>
March 2025	<b>Kappa Mu Epsilon National Convention</b>
January 2025	<b>Joint Mathematics Meeting</b>
June 2024	<b>Trisectors Workshop 2024</b>
June 2022	<b>New Developments in Four Dimensions</b>
June 2022	<b>Junior Trisectors Retreat</b>
July 2021	<b>Gauge Theory in Geometry and Topology, Summer Graduate School at MSRI</b>
June 2021	<b>Summer Trisectors Workshop 2021</b>
December 2020	<b>Winter Trisectors Workshop 2020</b>
June 2020	<b>Nearly Carbon Neutral Topology Conference</b>
September 2019	<b>Midwest Geometry Conference</b>