

Dylan C. Beck

4100 S 4th St. ◇ Leavenworth, KS 66048
(913) 758-6118, x.6108 ◇ Dylan.Beck@StMary.edu

EDUCATION

University of Kansas

Ph.D., mathematics (advised by Hailong Dao) May 2022
Ph.D. thesis: *Combinatorial and Homological Aspects of Monomial Algebras and Numerical Semigroups*

Missouri State University

B.S. with Honors, mathematics (minor in German) May 2016
GPA: 4.00/4.00; member of Kappa Mu Epsilon (Mathematics Honors Society)

EMPLOYMENT

University of Saint Mary

Assistant Professor of Mathematics Aug 2024 to present

- | | |
|--|--|
| ◇ MA 134 (Quant've Lit' with Basic Principles) | ◇ MA 330 (Introductory Statistics) |
| ◇ MA 135 (Quant've Lit': Math in Real World) | ◇ MA 345 (Calculus III: Multivariable) |
| ◇ MA 230 (Introductory Statistics) | ◇ MA 437 (Probability and Statistics) |
| ◇ MA 243 (Calculus and Analytic Geometry I) | ◇ MA 455 (Modern Geometries) |
| ◇ MA 244 (Calculus and Analytic Geometry II) | ◇ MA 463 (Abstract Algebra) |

Baker University

Visiting Assistant Professor of Mathematics Aug 2022 to May 2024

- | | |
|--|--|
| ◇ MA090 (Intermediate Algebra) | ◇ MA291 (Introduction to Higher Math) |
| ◇ MA145 (College Algebra) | ◇ MA345 (Problem Seminar in Mathematics) |
| ◇ MA146 (Trigonometry) | ◇ MA372 (Differential Equations) |
| ◇ MA172 (Calculus II) | ◇ MA383 (Introduction to Modern Algebra) |
| ◇ MA221 (Statistics I) | ◇ MA445 (Senior Seminar in Mathematics) |
| ◇ MA281 (Introduction to Linear Algebra) | ◇ MA491 (Introduction to Real Analysis) |

University of Kansas

Graduate Teaching Assistant in Mathematics Aug 2016 to May 2022

Courses are marked with an asterisk (*) to signify the instructor of record distinction.

- | | |
|--|----------------------------------|
| ◇ MATH 002 (Intermediate Algebra) | ◇ MATH 115 (Applied Calculus I)* |
| ◇ MATH 101 (College Algebra) | ◇ MATH 125 (Calculus I) |
| ◇ MATH 104 (Precalculus)* | ◇ MATH 126 (Calculus II) |
| ◇ MATH 105 (Intro to Topics in Mathematics)* | ◇ MATH 127 (Calculus III) |

Undergraduate Supervisor, Kansas Algebra Program Aug 2016 to May 2017

Missouri State University

Undergraduate Teaching Assistant in Mathematics Jun 2015 to Aug 2016

 ◇ MTH 101 (Intermediate Algebra A) ◇ Liaison, Center for Learning and Writing

Mathematics Tutor, Bear CLAW (Center for Learning and Writing) Aug 2013 to Aug 2016

 ◇ MTH 103 (Intermediate Algebra) ◇ MTH 261 (Calculus I)

 ◇ MTH 135 (College Algebra) ◇ MTH 280 (Calculus II)

 ◇ MTH 138 (Precalculus) ◇ MTH 287 / 288 (Applied Calculus I / II)

 ◇ MTH 181 (Trigonometry) ◇ MTH 302 (Calculus III)

AWARDS

Teaching

finalist, Florence Black Award for Excellence in Teaching Apr 2021

Academic

John Bunce Memorial Award Apr 2022

Elbert Walker Graduate Scholarship in Mathematics May 2021

Rashleigh Family Graduate Scholarship in Mathematics May 2020

May Landis Graduate Scholarship in Mathematics May 2019

U.G. Mitchell Graduate Scholarship in Mathematics May 2019

First Place in Mathematics, MO State CNAS Undergraduate Research Symposium May 2014

PROFESSIONAL SERVICE

Leadership

Committee Chair, Science and Mathematics Undergraduate Research Forum (SMURF) Apr 2027

Board Member, Kansas State Department of Education Mathematics Program Review Apr 2026

Poster Judge, University of Saint Mary Science and Mathematics Undergraduate Forum ... Apr 2026

Session Chair, University of Saint Mary Science and Mathematics Undergraduate Forum ... Apr 2026

Committee Chair and Session Chair, University of Saint Mary STEAM Week 2025 Oct 2025

Committee Member, University of Saint Mary Assessment Committee Apr 2025 to present

Committee Member and Session Chair, University of Saint Mary STEM Week 2024 Oct 2024

Panel Chair, Baker University Scholars Symposium Apr 2024

Faculty Judge, Baker University Academic Scholarship Competition Feb 2024

Faculty Judge, Baker University Academic Scholarship Competition Nov 2022

Organizer, University of Kansas Graduate Student Algebra Seminar Aug 2021 to May 2022

Organizer, University of Kansas Ph.D. Qualifying Exam Study Groups Aug 2018 to May 2022

Refereeing

International Journal of Number Theory, Semigroup Forum

RESEARCH

Research Interests

commutative algebra and its connections to combinatorics and additive number theory

Publications

Canonical blow-up of one-dimensional singularities (with Hailong Dao), in progress

Equivalence relations induced by functions (with April Thomas), in progress

On a generalization of two-dimensional Veronese subrings, in progress

On threshold properties of the n -fold sums of a numerical semigroup (with Srishti Singh), in progress

The radius of a numerical semigroup, in progress

Some new invariants of Noetherian local rings (with Souvik Dey), [arXiv: 2205.01658](#)

Academic Talks

Chicken Nugget Monoids, USM Science and Mathematics Undergraduate Forum Apr 2026

Doubling the Chocolate Bar: the Banach-Tarski Paradox, USM STEM Week Oct 2024

The n -Fold Sum of a Numerical Semigroup, KU Algebra Day 2023 Nov 2023

The Radius of a Numerical Semigroup, University of Kansas Algebra Seminar Nov 2022

Some New Invariants of Noetherian Local Rings, URiCA May 2022

[Canonical Modules](#), Graduate Student Algebra Seminar Mar 2022

Some New Invariants of Edge Rings of Finite Simple Graphs, KU Combinatorics Seminar .. Feb 2022

A Small Survey of Topics in Commutative Algebra, Graduate Student Seminar Feb 2022

[The Basics of Homological Algebra](#), Graduate Student Algebra Seminar Feb to Apr 2022

Canonical Blow-Up of Numerical Semigroups, KS Math Graduate Student Conference Dec 2021

Canonical Blow-Up of One-Dimensional Singularities, KU Local Algebra Conference Nov 2021

[Serre's Condition and Cohen-Macaulayness](#), Graduate Student Algebra Seminar Oct 2021

[Depth, Dimension, and Cohen-Macaulayness](#), Graduate Student Algebra Seminar Oct 2021

[Numerical Semigroup Rings](#), Commutative Algebra Regional Expository Seminar Feb 2021

Loewy Length and the Rees Property, Graduate Student Algebra Seminar Mar 2020

Gorenstein Rings and the Canonical Module, Graduate Student Algebra Seminar Nov 2019

Cohen-Macaulay Rings and Their Properties, Graduate Student Algebra Seminar Nov 2019

Connecting Depth, Ext, and Projective Dimension, Graduate Student Algebra Seminar Apr 2019

Banach-Tarski Paradox and Equidecomposable Sets, Graduate Student Seminar Nov 2018

Cohen-Macaulay Rings, Depth, Regular Sequences, Graduate Student Algebra Seminar Oct 2018

Ethics in Mathematics: a History of Mathematical Proofs, Graduate Student Seminar Feb 2018

Paradoxical Decompositions and the Banach-Tarski Paradox, Graduate Student Seminar ... Oct 2016

On a Quadratic Variant of a Problem of Berzsenyi (with A. Bajwa, A. Li, M. Pellegrino, M. Shadwick),
MO State College of Natural and Applied Sciences UG Research Symposium May 2014

Conferences Attended

URiCA: Upcoming Researchers in Commutative Algebra, University of Nebraska	May 2023
KUMUNU Commutative Algebra Conference, University of Nebraska	Oct 2022
KUMUNU Commutative Algebra Conference, University of Nebraska	May 2022
Kansas Mathematics Graduate Student Conference, University of Kansas	Dec 2021
KUMUNU Commutative Algebra Conference, University of Nebraska	Sep 2019
KUMUNUjr Commutative Algebra Conference, University of Nebraska	Mar 2019
Southwest Local Algebra Meeting, University of Texas at El Paso	Feb 2019
KUMUNU Commutative Algebra Conference, University of Kansas	Oct 2018
Great Plains Combinatorics Conference, Kansas State University	Apr 2018
Graduate Student Combinatorics Conference, University of Texas at Dallas	Apr 2018
KUMUNU Commutative Algebra Conference, University of Kansas	Oct 2017
The Midwest Combinatorics Conference, University of Minnesota	May 2017

Organization

Organizer, Numerical Semigroups Mini-Course	Jun to Aug 2023
---	-----------------

COMMUNITY SERVICE

Leadership

Board Member, Sophic Poetry Collective	Jan 2026 to present
Director of Soccer, Stonewall Sports KC	Jan 2026 to present
Board Member, Poetic Underground KC	Oct 2025 to present
Board Member, 38th Street Task Force	Oct 2024 to May 2026
Film Host, A Beginner's Mind Film Extravaganza	Aug 2023 to present
Trivia Host, City Barrel Pizza + Patio	Sep 2022 to present

Presentations

<i>Our Only Way Is Through</i> , No Divide KC	Jun to Sep 2026
<i>Our Only Way Is Through</i> , Goppert Gallery	Mar to Apr 2026

Publications

<i>I Mistook an Upside-Down M for a W</i>	Aug 2026
---	----------

PROFESSIONAL REFERENCES

Hailong Dao, Professor of Mathematics

University of Kansas

hdao@ku.edu

(785) 393-7202

Daniel James, Assistant Professor, General Faculty

University of Virginia

hdj4nd@virginia.edu

(434) 924-4919

Jeremy Martin, Professor of Mathematics

University of Kansas

jlmartin@ku.edu

(785) 864-7114

Jila Niknejad, Senior Lecturer in Mathematics

Vanderbilt University

jilaniknejad@gmail.com

(785) 331-2959

Michelle Pellegrino, Data Engineer

University of Missouri-Kansas City

mpellegrino@umsystem.edu

(636) 487-3629