

Bhawesh Mishra

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EDUCATION

- PhD in Mathematics (Expected May, 2023) - The Ohio State University
GPA: 3.87; Advisor: Dr. Vitaly Bergelson.
 - Research Topic - Arithmetic properties of polynomials; local solvability of diophantine equations
- B.A. in Mathematics (Obtained August 2017) - Berea College, KY
GPA: 3.9, Summa Cum Laude
- Visiting Student (Jan 2016 - July 2016) - University of Wisconsin-Madison
GPA: 4.0

PUBLICATIONS AND PREPRINTS

1. Intersective Polynomials Arising from Sums of Powers. *Comm. Algebra*. 2021. 49(6). 2633-2644. [Journal Link](#).
2. Polynomials Consisting of Quadratic Factors with Roots Modulo Any Positive Integer. *Amer. Math. Monthly*. 2022, 129(2). 178-182. [Journal Link](#).
3. Minimally Intersective Polynomials with Arbitrarily Many Quadratic Factors. *Integers*. 2022. 22. [Journal Link](#).
4. Polynomials over Ring of Integers of Global Fields that have Roots Modulo Every Finite Indexed Subgroup. *J. Algebra*. 2022. 608. 239-258. [Journal Link](#). [Preprint Link](#).
5. q^{th} Power Residue and Linear Coverings of Vector Space over \mathbb{F}_q . Submitted to *Finite Fields Appl.*
6. Intersective Polynomials with Factors of the form $(x^q - a)$. Submitted to *Comm. Algebra*.

SERVICE AND INVOLVEMENT.

JULY 2020 TO SEPTEMBER 2022	Treasurer – Mathematics Graduate Student Association (MGSA), The Ohio State University Handling the funding for graduate student activities in the department such as MGSA seminar, happy hours; Representing graduate student interests following the COVID-19 pandemic
SPRING 2022	Graduate Student Representative - Departmental Committee on graduate student health and well-being Responsible for communicating graduate student perspective during designing of a survey to assess graduate student well-being.
FALL 2018 TO SUMMER 2019	Graduate Student Representative - Departmental Committee on Diversity and Inclusivity Share graduate student perspectives for a report suggesting the departmental leadership potential steps to enhance inclusivity in the department.

UNDERGRADUATE MENTORING

Mentoring an undergraduate student through a semester long reading project on research mathematics; culminating in a final write-up and presentation. List of students and topics:

- **Gao Yang (Fall, 2021)** - *Local Solvability of Diophantine Equations*.
- **Kabir Belgikar (Spring, 2022)** - *Uniform Distribution Modulo 1 and Diophantine Approximation*.
- **Aaron Yoder (Fall, 2022)** - *Applications of Number Theory to Cryptography*.

NOTABLE AWARDS

MAY 2022 to MAY 2023	The Presidential Fellowship Most prestigious award for a graduate student, awarded in recognition of research and scholarship (Nominated by the mathematics department and awarded through university wide competition)
APRIL 2022	AMS Catalyzing Advocacy in Science and Engineering (CASE) Fellowship One of two fellows chosen by the American Mathematical Society to attend a 3.5 day long workshop in DC about STEM policy in Washington DC
SUMMER 2020	NSF Mathematical Sciences Graduate Internship (MSGI) Did not attend due to delay in passport renewal affected by COVID-19.
MAY 2019 to AUG 2019	Student Research Assistant The Ohio State University, Department of Mathematics Stipend with no teaching responsibilities along with full tuition and health insurance subsidy
JAN 2019 to MAY 2019	Tibor Radó Research Associateship (\$2,325 per month) The Ohio State University, Department of Mathematics
AUG 2017 to AUG 2018	University Fellowship, The Ohio State University, Graduate School Awarded through university-wide competition amongst entering graduate students
AUG 2017 to JULY 2019	The Willis D. Rutherford Scholarship for Graduate Studies Awarded through college wide competition amongst graduating students
JUN 2014 to MAY 2017	Ballard-McConnell-Willis Scholarship Largest Scholarship at Berea College, KY; awarded to a student "for demonstrating excellent scholarship, an ability to instill appreciation for mathematics in others and potential for accomplishment"
AUGUST 2013 to JULY 2017	Full Scholarship, Berea College, KY Full tuition, room and board scholarship for entire college career