Amit Kumar Basistha

Purdue University
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INTERESTS

Algebraic Number Theory, Representation Theory.

EDUCATION

Indian Statistical Institute Bangalore Center, Bangalore, India 2022-2025
Bachelor of Mathematics(Hons.)
Purdue University Spring 2026-Present
PhD, Mathematics

GRADUATE COURSES ATTENDED

Elliptic Curves, Class Field Theory, Representation Theory, Modular Forms, Local Langlands Program, Representations of p-adic Reductive Groups, Homological Algebra, Algebraic Geometry.

TALKS AND PRESENTATIONS

Analytic Continuation of the Riemann Zeta Function and the Prime Number Theorem (7^{th} October 2023), Math Club, Indian Statistical Institute Bangalore Center. Further details can be found here

The Analytic Class Number Formula (19^{th} June 2024), as a part of the student presentations for the Visiting Students' Research Program by Tata Institute of Fundamental Research held online. The slides for the presentation can be found here

Homological Methods in Number Theory (11^{th} August 2024), Math Club, Indian Statistical Institute Bangalore Centre, Further details and notes for the talk can be found here

Elliptic Integrals (23^{rd} October 2024), as a part of an online Elliptic Curves seminar organized by the Math Club of the Indian Institute of Science Education and Research, Tirupati.

The j invariant (25^{th} February 2025), as a part of an online Elliptic Curves seminar organized by the Math Club of the Indian Institute of Science Education and Research, Tirupati.

ACADEMIC ACHIEVEMENTS

Harold Dean Victory Jr. Fellowship:
Awarded the Harold Dean Victory Jr. Fellowship for a period of two years(2026-2028) by Dept. of Mathematics, Purdue University.

Keedy Math & Education Scholarship
Received the Keedy Math & Education Scholarship from Dept. of Mathematics, Purdue University for the academic year 2026-2027.

Madhava Mathematics Competition:
14^{th} rank in the Madhava Mathematics Competition 2024 organised by Homi Bhabha Centre for Science, Education and Research.

Simon Marais Mathematics Competition:
A score of 30 in the Simon Marais Mathematics Competition 2023 in the Pairs Category (with Dhruba Sarkar, joint best in the Institute).

A score of 30 in the Simon Marais Mathematics Competition 2024 in the Pairs Category (with Dhruba Sarkar, second best in the Institute).

Qualified Regional Mathematics Olympiad and appeared in the Indian National Mathematics Olympiad conducted by Homi Bhabha Centre for Science Education and Research in 2018-19, 2019-20 and 2020-21.