

Badri Vishal Pandey

CONTACT INFORMATION

Dept. of Mathematics
University of Virginia
Charlottesville, VA 22904

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RESEARCH INTERESTS

Analytic and Algebraic Number Theory

EDUCATION

University of Virginia, Charlottesville, VA

PhD July, 2019 - December, 2022.

- *Mathematics*

Thesis title: On Higher Turán Inequalities for the Plane Partitions, Ellipsoidal T -Designs, and j -Inversion

Thesis advisor: **Ono, Ken**

Marvin Rosenblum Professor of Mathematics, Department of Mathematics,
University of Virginia.

Indian Statistical Institute, Bangalore, India

M.Math July, 2017-2019.

- *Mathematics*

Indian Statistical Institute, Bangalore, India

B.Math(Hons.) July, 2014-2017.

- Major: *Mathematics*

PAPERS AND PUBLICATIONS

- Modular forms and Ellipsoidal T -designs, [The Ramanujan Journal](#)
- Inversion Formulas for the j -function Around Elliptic Points (Co-author: De Las Penas Castano A), [Archiv der Mathematik](#)
- Higher Order Turán Inequalities for the Plane Partition Function (submitted)

TALKS

- On Higher Turán Inequalities for the Plane Partitions, Ellipsoidal T -Designs, and j -Inversion
Graduate seminar, University of Virginia
May, 2022
- Inversion of the Modular j -function
NISER, Bhubneswer
May, 2022
- Ellipsoidal T -design
18th Nagoya combinatorial seminar
December 17, 2020
- Lightning Rounds by graduate students,
UVA Undergraduate Math Club
March 03, 2020

TEACHING
EXPERIENCE

- *Mentor for Directed Reading Program at University of Virginia,* Fall 2022
- *Teaching Assistant for Research Experiences for Undergraduates at the University of Virginia,* Summer 2020
- *Teaching Assistant for Research Experiences for Undergraduates at the University of Virginia,* Summer 2021
- *Teaching Assistant for Research Experiences for Undergraduates at the University of Virginia,* Summer 2022
- *Instructor for Math 1220, A survey of calculus 2,* Fall 2021
- *Instructor for Math 1220, A survey of calculus 2,* Spring 2021
- *Instructor for Math 1210, A survey of calculus 1,* Fall 2020
- *Teaching Assistant for Math 3250, Ordinary Differential Equations,* Spring 2020
- *Grader for Math 3310, Basic Real Analysis,* Spring 2020
- *Teaching Assistant for Math 2310, Calculus III,* Fall 2019
- *Grader for Math 4651, Advanced Linear Algebra,* Fall 2019

CONFERENCES
AND WORKSHOPS

- *100 Years of Mock Theta Functions (attended virtually),* May 22-24, 2022
- *Virginia Mathematics Lecture: Mikhail Khovanov (Columbia)* April 18-20, 2022
- *Virginia Mathematics Lecture: Curtis McMullen (Harvard)* November 8-10, 2021
- *Virginia Mathematics Lecture: Greg Lawler (UChicago)* February 12-14, 2020
- *Virginia Mathematics Lecture: Peter Sarnak (IAS Princeton)* November 4-9, 2019
- *Advanced Instructional School on Topology,* May 2018
National Board of Higher Mathematics
- *Algebraic Geometry,* Dec 2017
Indian Statistical Institute

ACHIEVEMENTS AND SCHOLARSHIPS	<i>Among top 100</i> TIFR Graduate School Admissions Written Exam	2019
	<i>Rank 46</i> CSIR UGC National Eligibility Test	2018
	<i>Academic fellowship for excellent performance</i> BMath Third year	2017
	<i>Academic fellowship for being second rank holder</i> BMath First year	2014
	<i>Ranked 21 out of 150,000 candidates</i> Uttar Pradesh State Engineering Entrance Exam	2014
REFEREING	<ul style="list-style-type: none"> • <i>Journal of Number Theory</i> • <i>International Journal of Number Theory</i> • <i>Research in Number Theory</i> • <i>The Ramanujan Journal</i> • <i>Transactions of the American Mathematical Society</i> 	
EXTRACURRICULAR ACTIVITIES	• <i>ISI intra-college Cricket tournament winner,</i> Indian Statistical Institute, Bangalore center	2018
	• <i>ISI intra-college Soccer tournament winner,</i> Indian Statistical Institute, Bangalore center	2015 & 2017
	• <i>Sports Committee Member,</i> Indian Statistical Institute, Bangalore center	2015
	• <i>Mentor of first year undergrad,</i> Indian Statistical Institute, Bangalore center	2015
TECHNICAL SKILLS	Sage(elementary), Python(elementary), Mathematica, Octave, LateX, C, C++, html	