# Venkata Sai Narayana Bavisetty

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## RESEARCH INTERESTS
Chromatic homotopy theory and Higher category theory

## EDUCATION
**Ph.D. in Mathematics** | University of Illinois Urbana-Champaign (UIUC)
Illinois | USA| Aug 2023
Thesis Topic: Picard group of Q(2)
Advisor: Vesna Stojanoska

**5 Year Integrated M.Sc. in Mathematics** | Indian Institute of Technology Bombay (IITB)
Mumbai | India| Aug 2017 | GPA**:** 9.59/10.0
Master's Project: The Heat Kernel approach to the Index theorem
Supervised by Akhil Ranjan and MS Raghunathan

## RESEARCH VISITS
- Spectral Methods in Algebra, Geometry, and Topology
  Hausdorff Research Institute for Mathematics | Bonn | Fall 2022

## TEACHING EXPERIENCE
- ❖ **Teaching Assistant** | UIUC | Spring 2018- Present
  - **Ranked as excellent** by students for **7 semesters**
  - Led **Active Learning** discussion sessions for single variable and multivariable calculus
  - Served as Teaching Assistant in **MERIT**, a challenging program for students from traditionally underrepresented groups in STEM

- ❖ **Instructor**| Summer Illinois Math Camp | UIUC | Summer 2021
  [Weeklong math camp for middle and high school students, focused on creative and discovery driven side of mathematics. Course taught: Topological invariants]

- ❖ **Teaching Assistant** | IITB | Spring 2015- Spring 2017
  - **Head Teaching Assistant** for Differential Equations II
  - Taught Differential Equations II and Complex Analysis

## MENTORING EXPERIENCE
**Research Mentor** | Illinois Geometry Lab | UIUC | Spring 2021 – Spring 2022

[Multi-semester undergraduate research project. Title: Modular Forms and homotopy of Q(2)]
- Mentored undergraduate students for three semesters
- **Awarded Susan C Morisato Scholarship** for contributions to Illinois Geometry Lab

## SERVICE
- Member**, Graduate Affairs Committee** | UIUC | Fall 2022
- **Co-organizer, Math Department TA training** | UIUC | Fall 2022
- Organizer, Graduate Geometry Learning Seminar | UIUC | Spring 2018
- Organizer, Graduate Student Homotopy Theory Seminar | UIUC | Fall 2020 - Spring 2021

## RESEARCH TALKS

- Picard group of Q(2) | Hausdorff Research Institute for Mathematics | Bonn | Fall 2022
- Picard groups in homotopy theory | UIUC | Sep 2022, Oct 2020

## EXPOSITORY TALKS

- Introduction to Picard groups | UIUC | Nov 2019
- The crystalline period map | UIUC | Apr 2019
- An introduction to Ratner's theorem | UIUC | Oct 2018
- Ergodic theory and Mostow rigidity | UIUC | Sep 2018
- The tale of an exotic sphere | UIUC | Apr 2018
- H-principle for symplectic structures | UIUC | Oct 2017
- Cohomology theories and formal group laws | IITB | Apr 2017
- Steenrod squares: construction and properties | IITB | Feb 2017
- De Rham's theorem using sheaf cohomology | IITB | Sep 2016
- Lefschetz fixed point theorem | IITB | Mar 2016
- Whitney's approximation theorem | IITB | Oct 2015
- The Schwarz-Christoffel formula | IITB | Mar 2015

## CONFERENCES AND WORKSHOPS

**Mayday**
University of Chicago | Chicago | Oct 2019

**Graduate Student Topology and Geometry Conference**
University of Illinois Urbana-Champaign | Mar 2019

**Arizona Winter School 2019: Topology and Arithmetic**
University of Arizona | Tucson | Mar 2019

**Between Topology and Quantum Field Theory**
University of Texas | Austin | Jan 2019

**Midwest Topology Seminar**
University of Kentucky | Kentucky | Sep 2018

**RTG Workshop on the Geometry and Physics of Higgs bundles III**
University of Illinois | Chicago | Jun 2018

**Chromatic Homotopy Theory: Journey to the Frontier**
University of Colorado | Boulder | May 2018

**Midwest Topology Seminar**
Indiana University | Bloomington | Apr 2018

**Graduate Student Topology and Geometry Conference**
University of Illinois | Chicago | Apr 2018

**No Boundaries: Groups in Algebra, Geometry, and Topology**
University of Chicago | Chicago | Oct 2017

**Workshop on H-principle**
Indian Statistical Institute | Kolkata | May 2017

**Workshop on Differential Geometry**
Indian Institute of Technology | Bombay | May 2016