

Deepisha Solanki

Teaching Assistant, SUNY Buffalo, NY

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ACADEMIC DETAILS

Degree/Exam	Institute	Year	CGPA/%
Ph.D. Mathematics	SUNY, Buffalo	Pursuing	3.910
M.Sc. Mathematics	Indian Institute of Technology, Delhi	2017	8.440
B.Sc. Mathematics	St. Stephen's College, University of Delhi	2015	87.5 %
AISSCE (Class XII CBSE)	Bal Bharati Public School, Rohini, Delhi	2012	94.25%
AISSE (Class X CBSE)	Bal Bharati Public School, Rohini, Delhi	2010	9.000

EXPECTED GRADUATION DATE: December 2023**TECHNICAL SKILLS**

- Latex, Python, Regina, Excel, Word, PowerPoint, Inkscape

PROJECTS/WORK EXPERIENCE

- **Topological Data Analysis Project** (Application of TDA to climate data, working under Huikyo Lee): Did a summer internship in 2022, at the Jet Propulsion Laboratory in Pasadena, working on a TDA project, using Python to study aerosol data collected by NASA satellites to better predict climate models.
- **Engineering Design Project** (Application of knot theory to manufacture materials, working under Prof. William Menasco): Currently working with the mechanical engineering department at Clemson University to build special geometric structures with desired properties, using knots as the basic building blocks
- **A Study of Elliptic Curves and Modular Forms** (Master's Thesis, guided by Prof. Amitabha Tripathi): The objective of the project was to understand Andrew Wiles' proof of Fermat's Last Theorem

SCHOLASTIC ACHIEVEMENTS

- Selected for NSF's **Mathematical Sciences Graduate Internship Program for Summer 2022**, did a summer internship at NASA and Caltech's Jet Propulsion Lab, working on a project using Topological Data Analysis to better predict climate models
- Awarded the 2021 **Harry Merrill Gehman Scholarship**
- Successfully cleared the Joint CSIR-UGC Test for JRF and Lecturership (NET), December 2016, for the award of **JUNIOR RESEARCH FELLOWSHIP** and secured All India Rank 65 (out of approximately 15000 candidates)
- Successfully cleared the **Graduate Aptitude Test in Engineering (Mathematics)**, February 2017, and secured All India Rank 60 (out of 6608 candidates)

TALKS GIVEN

- Parallel Session Talk, **48th Annual NYSRG Mathematics Conference 2023**, Syracuse University
- Special Session Talk, **2023 Spring Southeastern Sectional Meeting, AMS**, Georgia Institute of Technology (invited talk)
- Lightning Talk, **Tech Topology Conference 2022**, Georgia Institute of Technology
- Parallel Session Talk, **Binghamton University Combinatorics Analysis and Topology Conference 2022**, Binghamton University
- Parallel Session Talk, **Upper New York Topology Seminar 2022**, Syracuse University

- **Graduate Student Lecture Series**, University at Buffalo, on 28th September, 2022
- Seminar Talk, **NASA's Jet Propulsion Laboratory** on 10th June, 2022

WORKSHOPS AND CONFERENCES ATTENDED

- **48th Annual NYSRG Mathematics Conference 2023**, Syracuse University
- **2023 Spring Southeastern Sectional Meeting, AMS**, Georgia Institute of Technology
- **Tech Topology Conference 2022**, Georgia Institute of Technology
- **Binghamton University Combinatorics Analysis and Topology Conference 2022**, Binghamton University
- **Upper New York Topology Seminar 2022**, Syracuse University
- **Tech Topology Conference 2021**, Georgia Institute of Technology, held virtually
- **Topology Student Workshop 2020**, Georgia Institute of Technology, held virtually

SERVICE

- Co-organizing **University at Buffalo Discourse of Graduates** for Spring 2023
- **Vice President** of American Mathematical Society Graduate Student Chapter at University at Buffalo

COURSES TAUGHT (As teaching assistant)

- Taught courses ranging from Calculus I, II and III to advanced courses such as Topology, Probability Theory and Abstract Algebra as a teaching assistant. I have also been a floater for the math department at UB for several semesters where my duties entailed teaching recitations and lectures for absentee instructors and professors.

AWARDS AND ACHIEVEMENTS

- Badminton: *Secured podium finishes in about 15 tournaments at the National, State, District and Institute level*
 - Called for the National Badminton Camp in the year 2010 and Secured second position in the 37th National Sports Festival for Women-2011-12
 - Reached the quarterfinal of the 23rd Sub Junior National Badminton Championship, Jaipur 8-14 October 2009
 - Represented Delhi State in the 54th and 56th National School Games Federation Shuttle Badminton Tournament
 - Secured the third position in the Central Board of Secondary Education, Inter School Sports and Games Competition, 2008-09 and 2010-11
- Captained the St. Stephens College Women's badminton team for the year 2014-15, was secretary of the St. Stephen's College Women's badminton team for the year 2013-14 and was given the Ground colors of St. Stephen's College in the academic year 2013-14
- Awarded Outstanding Sportswoman of the Year at IIT, Delhi for the year 2015-16
- Adjudged the Best All Rounder of Bal Bharati Public School, Rohini, Delhi for the academic year 2012-13 and served as the Sports Captain of Bal Bharati Public School, Rohini, Delhi for the academic year 2011-12