

Aniketh Sivakumar

asivakumar@tulane.edu • Tulane University

Education

Tulane University PhD in Mathematics	2024 – Present
Indian Institute of Science Education and Research (IISER), Pune, India BS-MS in Mathematics (Graduated with Distinction) CGPA: 9.0	2019 – 2024
Padma Seshadri Bala Bhavan Senior Secondary School, Chennai, India Board: Central Board of Secondary Education (CBSE) Score: 95.8%	2017 – 2019

Research Interests

Commutative and Homological algebra and their connections to geometry and combinatorics.

Publications & Preprints

Papers

- [1] A. V. Jayanthan, A. Sivakumar, and A. Van Tuyl, *Partial Betti splittings with applications to binomial edge ideals*, Collect. Math. (2026). doi:[10.1007/s13348-025-00501-y](https://doi.org/10.1007/s13348-025-00501-y)

Preprints

- [1] S. Das, J. Montaña, and A. Sivakumar, *The multiplicity sequence of monomial ideals*, preprint (2026), [\[arXiv\]](#).
- [2] T. H. Hà and A. Sivakumar, *Polynomial interpolation and the Waldschmidt constant of points in projective space*, preprint (2026), [\[arXiv\]](#).

Teaching Experience

Tulane University	
Teaching Assistant – Explorations in Applied Mathematics	Summer 2026
Teaching Assistant – Probability & Statistics - 1	Fall 2025
Teaching Assistant – Calculus-2	Spring 2025, Summer 2025, Spring 2026
Teaching Assistant – Calculus-1	Fall 2024

Awards and Fellowships

- **Phillips Graduate Fellowship 2026** Fall 2026
- **Graduate TA Award 2026** Spring 2026
- **MITACS Globalink Research Award (GRA)** Sept 2023 – Dec 2023

- MITACS Globalink Research Internship (GRI) Jun 2022 – Aug 2022
- INSPIRE DST Scholarship for Higher Education 2019 – 2024

Selected Talks & Presentations

Seminar and Conference Talks

Graduate Student Colloquium, Tulane University Feb 11, 2025

Title: Partial Betti splittings with applications to binomial edge ideals

Posters

Algebra and Combinatorics Day (AlGeCom)-XXVII April 11, 2026

Title: Multiplicity sequence of monomial ideals West Lafayette, IN

Tulane Research, Innovation, and Creativity Summit (TRICS) April 8–10, 2025

Title: Partial Betti splittings of binomial edge ideals New Orleans, LA

Southwest Local Algebra Meeting (SLAM) March 1–2, 2025

Title: Partial Betti splittings of binomial edge ideals Tempe, AZ

Workshops and Conferences

Singularities in Commutative Algebra through Cohomological Methods July 6-17 2026

Simons Laufer Mathematical Sciences Institute Berkeley, CA

Algebra and Combinatorics Day (AlGeCom)-XXVII April 11, 2026

Purdue University West Lafayette, IN

Southwest Local Algebra Meeting (SLAM) Feb 28 - Mar 1, 2026

University of Texas at Arlington Arlington, TX

An Introduction to Recent Trends in Commutative Algebra May 12–16, 2025

Fields Institute, University of Toronto Toronto, Canada

Tulane Mini Summer School June 2–13, 2025

Tulane University New Orleans, LA

Macaulay2 at Tulane Jan 14–18, 2025

Tulane University New Orleans, LA

Southwest Local Algebra Meeting (SLAM) March 1–2, 2025

Arizona State University Tempe, AZ

Symmetries and Singularities in Texas Jan 30 – Feb 2, 2025

Texas A&M University College Station, TX

CMS Winter Meeting 2023 Dec 1–4, 2023

Hilton-Doubletree Montreal, Canada

ICECA 2023 September 2023

Online

AICOVE 2023 June 2023

Online

Service and Outreach

- **K-12 STEM Outreach: Girls in STEM at Tulane (GIST)** October 2024
Volunteer for local youth STEM development initiative.
- **K-12 STEM Outreach: Boys at Tulane in STEM (BaTS)** September 2024
Volunteer for academic community outreach.
- **IISER Pune Mimamsa Science Quiz** 2021 – 2022
General Coordinator for the national-level science competition.
- **IISER Pune Math Club** 2020 – 2021
Coordinator organizing seminars and student math engagement events.

Technical Skills

Programming Languages: Python, Sage, Macaulay2

Tools/Frameworks: $\text{\LaTeX}$