

**Gokul Srinivasaragavan**  
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### **Research Interests**

High-energy astrophysical phenomena (emphasis on gamma-ray bursts, supernovae, and compact objects)

### **Education**

University of Maryland, College Park, 2021-Present

Ph.D. Student, Astronomy

California Institute of Technology, 2017-2021

B.S., Astrophysics

3.7 GPA

Dougherty Valley High School, 2013-2017

### **Positions Held:**

2021-2023: Research Assistant at UMD College Park/NASA Goddard

Advisor: Dr. Brad Cenko

2020: Caltech Student Researcher (with Palomar Gattini Infrared Survey)

Advisor: Professor Mansi Kasliwal

2019, 2020 : Student Undergraduate Laboratory Internship Intern (Stanford Linear Accelerator)

Advisor: Dr. Maria Dainotti

2018: Caltech Summer Undergraduate Fellowship Intern (NASA Jet Propulsion Lab)

Advisor : Dr. Raghvendra Sahai

### **Honors**

2022: UMD College of Computer, Mathematical, and Natural Sciences Dean's Fellow

2020: Certificate of completion of GROWTH Astronomy School

2020: National Association of Basketball Coaches Honors Court

2019: Caltech Housner Fund Recipient (Funding for International Conference)

2018, 2019, 2020: SCIAC All-Academic Team

2017: National Merit Finalist

### **Refereed Publications**

**Srinivasaragavan, G.P.** et al. 2023, "A Sensitive Search for Supernova Emission Associated with the Extremely Energetic and Nearby GRB 221009A", Accepted in The Astrophysical Journal

**Srinivasaragavan, G. P.** et al. 2022, "PGIR 20eid (SN 2020qmp): A Type IIP Supernova at 15.6 Mpc discovered by the Palomar Gattini-IR Survey", Astronomy & Astrophysics, 660, 138

**Srinivasaragavan, G. P.** et al. 2020, "On the investigation of the closure relations for Gamma-Ray Bursts observed by Swift in the post-plateau phase and the GRB fundamental plane", The Astrophysical Journal, 903, 18

Dainotti, M. G., Omodei, N., **Srinivasaragavan, G. P.**, et al. 2020, “On the Existence of the Plateau Emission in High-Energy Gamma-Ray Burst Light Curves observed by *Fermi*-LAT”, The Astrophysical Journal Supplements Series, 255, 13

De, Kishalay et al. (including **Srinivasaragavan, G. P.**) 2022, “SRGA J181414.6-225604: A New Galactic Symbiotic X-Ray Binary Outburst Triggered by an Intense Mass-loss Episode of a Heavily Obscured Mira Variable”, The Astrophysical Journal, 935, 36

Dainotti, M. G. et al. (including **Srinivasaragavan, G. P.**) 2021, “Closure relations during the plateau emission of Swift Gamma-Ray Bursts and consequences on the fundamental plane relation”, Publications of the Astronomical Society of Japan, 73, 4

De Kishalay et al. (including **Srinivasaragavan, G. P.**) 2021, “A Population of Heavily Reddened, Optically Missed Novae from Palomar Gattini-IR: Constraints on the Galactic Nova Rate”, The Astrophysical Journal, 912, 19

De, Kishalay et al. (including **Srinivasaragavan, G. P.**) 2020, “Constraining the X-ray - Infrared spectral index of second-timescale flares from SGR1935+2154 with Palomar Gattini-IR”, The Astrophysical Journal Letters, 901, L7

## **Presentations**

“A Study of Broad-Lined Type Ic Supernovae from the Zwicky Transient Facility”, HEAD 20 Poster Presentation, March 2023

“PGIR20eid (SN 2020qmp): A Type IIP Supernova at 15.6 Mpc discovered by the Palomar Gattini-IR survey”, AAS 240 Talk, June 2022

“A Search for Relativistic Explosions in a Sample of ZTF Ic-BL Supernovae”, HEAD 19 Poster Presentation, March 2022

“On the investigation of the closure relations for Gamma-Ray Bursts observed by Swift in the post-plateau phase and the GRB fundamental plane”, AAS 237 iPoster Plus Virtual Presentation, January 2021

“On the Existence of the Plateau Emission in High-Energy Gamma-Ray Burst Light Curves observed by Fermi-LAT”, SLAC Summer Research Intern Oral Virtual Presentation, August 2020

“Investigation of possible existence of the plateau emission of Gamma-Ray Burst Light Curves observed by the FERMI-LAT and the fundamental plane relation with FERMI-LAT”, Poster Presentation at Texas Symposium for Relativistic Astrophysics, December 2019

“Study of Plateau Emission of Gamma-Ray Bursts in High-Energy Gamma-Rays and X-rays”, SLAC Summer Research Intern Oral Presentation, Stanford Linear Accelerator Center, August 2019

“Least Squares Fitting of the Spectral Energy Distributions of 30,000 Mass-Losing Stars using a Million Model Library: A Dictionary-Based Python Code”, SURF Summer Intern Oral Presentation, NASA Jet Propulsion Lab, August 2018

### **Observing Experience**

Lowell Discovery Telescope 3 Nights (Virtually)

Mauna Kea observatory, IRTF 1 Night (Virtually)

Palomar Observatory, Hale 200-in Telescope (WIRC+POL) 1 Night (Virtually)

### **Technical Experience**

X-ray analysis of transients (*Swift*)

Optical imaging, photometry and spectroscopy of transients (Zwicky Transient Facility)

Near-infrared imaging, photometry and spectroscopy of transients (Palomar Gattini-IR)

Gamma-Ray Burst Light Curve and Spectral Analysis (BAT and XRT, *Fermi-LAT*)

Software experience: Python, C, C++, Swift, MATLAB, Mathematica

### **Senior Thesis**

Using Palomar Gattini-IR to study Core-collapse Supernovae and Probe their Red Supergiant Progenitors (Advisor: Professor Mansi Kasliwal)

### **Outreach Activities**

Co-Creator of Cosmos Crusaders, a podcast that highlight the stories and achievements of minorities and underrepresented individuals in astrophysics.

Active member of EDI Department in UMD Department of Astronomy.

Created mentoring program between graduate students and senior undergrad Astronomy majors at UMD

Mentor to a student from Kappa League, a mentoring and guidance-based organization for minority youth in the Bay area, led by the historically African-American fraternity Kappa Alpha Psi based out of UC Berkeley.

Mentoring to an additional student, and teaching both students an introduction astronomy class and leading through an independent research project.