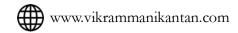
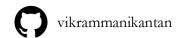
Vikram Manikantan







Education

May 2027 Ph.D., M.S., Astronomy & Astrophysics

+ Member of Theoretical Astrophysics Program (TAP) [link]

Jun 2022 B.A., Physics w/ Honors (+ Computer Science Minor)

+ <u>Outstanding Undergraduate Thesis Research</u> in the Physics and Astronomy Department [<u>Department Record</u>; <u>Press Release</u>]

+ Davis United World Scholar [link]

University of Arizona

GPA: 4.0/4.0

Northwestern University

GPA: 3.8/4.0

Experience

Aug 2022 Astrophysics Graduate Research Assistant

University of Arizona

present Advisor: Prof. Vasilis Paschalidis

Tucson, AZ

- + Running and debugging first ever general relativistic, magnetohydrodynamic (GRMHD) simulations of eccentric, accreting black hole binaries on remote supercomputers
- + Independently developing new initial data solutions in C++ for Athena++, a large-scale GRMHD code
- + Designing efficient analysis code to be submitted on remote servers and supercomputers such as Oak Ridge National Laboratory and Texas Advanced Computing Center

Jun 2019 Computational Astrophysics Researcher

Northwestern University

- Jul 2022 Advisor: Prof. Sasha Tchekhovskoy

Evanston, IL

- + Developed novel python analysis code to study multiple angular momentum transport modes within magnetically arrested accretion disks.
- + Designed a new, consistent method to define disk/wind boundaries in magnetically driven accretion regimes.
- + Writing first-author publication to be submitted to the Astrophysics Journal (ApJ) in August 2023

Jun 2021 Solutions Engineering Summer Analyst

Deloitte Consulting

- Aug 2021

Chicago, IL

- + Received full-time return offer to be an analyst in the Chicago office
- + Leading client workshops to develop scalable and efficient solutions to accommodate new revenue recognition business rules
- + Designing and developing process flows and functional specifications to guide database developers

Mentoring

Aug 2023 TIMESTEP Research Apprenticeship

UA Department of Astronomy

- May 2024 Graduate Coordinator

Tucson, AZ

- + Mentor a team of 5 undergraduate student interns on technical skills and research preparedness
- + Provide guidance on non-technical skills used in team settings communication, teamwork, and leadership
- + Coordinate bi-weekly 1:1 meetings with interns, weekly group meetings, and solicit feedback on the program

Aug 2023 COMPASS Workshop [github]

UA Department of Astronomy

Co-organizer and Instructor

Tucson, AZ

- + Developing core curriculum to cover computational basics for astrophysics research
- + Designing lessons and Jupyter notebook tutorials for Python, Numpy, Matplotlib, and debugging basics

Apr 2022 SPS/WiP Mentorship Program

NU Department of Physics

Senior Mentor Evanston, IL

- + Provided academic and professional guidance to four students, two of which were entering industry internships as physics majors
- + Coordinated individual mentor/mentee check-ins and larger mentor group meetings

Publication(s)

1. **Manikantan et al. 2023,** Equipartition of Winds and Turbulence as Angular Momentum Transport Processes in Magnetically Arrested Accretion Disks (in prep)

Grants

Feb 2023	Theoretical Astrophysics Program Travel Grant (University of Arizona) [Announcement]	\$1000
Jun 2020	Summer Undergraduate Research Grant (Northwestern University)	\$3500
Jun 2019	Undergraduate Research Assistantship Program (Northwestern University)	\$3500

Presentations

Jun 2022	Annual European Astronomical Society Meeting (EAS)	Poster
May 2022	UChicago High-Energy Astrophysics Journal Club	Talk
Jan 2022	239th American Astronomical Society Meeting (Cancelled)	Poster

Awards

AY 2021	Outstanding Undergraduate Thesis Research in the Physics and	Northwestern
-2022	Astronomy Department	University
		Evanston, IL

Department Record; Press Release.

References

1.	Professor Vasilis Paschalidis	University of Arizona
3.	Professor Sasha Tchekhovskoy	Northwestern University
5.	Professor Jens Koch	Northwestern University

^{*} Contact information available upon request