

Aditya Vijaykumar

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RESEARCH INTERESTS Gravitational Wave Astronomy and Astrophysics, Tests of General Relativity and Cosmology, Scientific Computing

EMPLOYMENT **CITA Postdoctoral Fellow** Sep 2023 - *Present*
Canadian Institute for Theoretical Astrophysics (CITA), Toronto
Graduate Student Aug 2018 - Aug 2023
International Centre for Theoretical Sciences (ICTS-TIFR), Bengaluru
Fulbright-Nehru Doctoral Research Fellow Aug 2022 - Mar 2023
Department of Physics, The University of Chicago

EDUCATION **International Centre for Theoretical Sciences (ICTS-TIFR), Bengaluru** 2018 - 2023
PhD in Physics. Mentor: Prof. Ajith Parameswaran.
Thesis Title: *Exploring gravity, astrophysics, and cosmology with gravitational waves*
Birla Institute of Technology and Science (BITS), Pilani 2013 - 2018
M.Sc. (Hons.) Physics and B.E. (Hons.) Mechanical Engineering

AWARDS

1. **Justice Oak Award for Outstanding thesis in Astronomy 2024**, Astronomical Society of India (ASI)
2. **V. V. Narlikar Best Thesis Award 2024**, Indian Association for General Relativity and Gravitation (IAGRG)
3. **Fulbright-Nehru Doctoral Research Fellowship 2022**, US Department of State and Government of India
4. **Graduate Fellowship 2018-2023**, ICTS-TIFR
5. **S.N. Bhatt Memorial Excellence Fellowship 2018**, ICTS-TIFR
6. **Summer Research Fellowship 2016**, Indian Academy of Sciences
7. **INSPIRE-DST Scholarship for Higher Education 2013-2018**, Government of India

PUBLICATION [NASA-ADS Link](#)

LIBRARY

SEMINARS

- Seminar at Caltech March 2025
- Seminar at UCLA March 2025
- IGC seminar, Penn State University October 2024
- IUCAA gravitational wave seminar August 2024
- Gravity Exploration Institute seminar, Cardiff University July 2024
- CIERA seminar, Northwestern University June 2024
- GRAPPA seminar, University of Amsterdam May 2024
- Strong seminar, Niels Bohr Institute April 2024
- CITA Seminar, University of Toronto January 2024
- TASTY Seminar, University of Toronto January 2024

• IUCAA gravitational wave seminar, Pune	July 2023
• Physics seminar, IISER Pune	July 2023
• Physics seminar, IIT Gandhinagar	June 2023
• Gravitational wave seminar, Seoul National University (virtual)	October 2022
• IGC seminar, Penn State University	August 2022
• Lorentz Institute seminar, Leiden (virtual)	June 2020
• IUCAA gravitational wave seminar, Pune	September 2019
• Albert Einstein Institute seminar, Hannover	July 2019

CONFERENCES AND MEETINGS	• APS Meeting, Anaheim, CA	March 2025
	• Midwest Relativity Meeting, Ann Arbor, MI	November 2024
	• PAX Meeting, London, UK (panelist)	July 2024
	• CASCA Meeting, Toronto	June 2024
	• Gravitational waves: A new ear on the chemistry of galaxies, Leiden	April 2024.
	• Globular Clusters and their Tidal Tails, Toronto	May 2024
	• Joint CITA-PI Gravitational waves meeting	October 2023
	• Pune-Mumbai Cosmology Meeting	August 2023
	• The Quest for Precision Gravitational-wave Cosmology, KICP, Chicago	September 2022
	• Second Chennai Symposium on Gravitation and Cosmology, Chennai (virtual)	February 2022
	• Advances in Computational Relativity, ICERM, Brown University (virtual)	September 2020
	• ICTS In-house Symposium, Bengaluru	February 2020
	• Astrophysics of Supermassive Black Holes, ICTS, Bengaluru	December 2019
	• International Conference on Gravitation & Cosmology, Mohali	December 2019
	• Future of Gravitational Wave Astronomy, ICTS, Bengaluru	August 2019
	• GR22 and Amaldi13, Valencia	July 2019

MENTORSHIP	• Ben Stadel (University of Alberta)	May 2024 - <i>Present</i>
	• Kaustubh Gupta (IISER, Pune)	May 2022 - May 2023
	• Adhrit Ravichandran (IIT Roorkee → UMass Dartmouth)	Sep 2021 - Aug 2022
	• Kruthi Krishna (IISc → Radboud University)	Sep 2020 - Aug 2021
	• Harsh Narola (IISER, Tirupati → Utrecht University)	Sep 2020 - Aug 2021

TEACHING	<ul style="list-style-type: none"> • Instructor and organizer, LIGO-Virgo Collaboration Gravitational-Wave Open Data Workshop #5 and #6 at ICTS. • Tutor for the Numerical Relativity graduate course, ICTS, Jan-April 2022. • Co-organizer and tutor, ICTS Workshop on Parameter Estimation with bilby, ICTS, Bengaluru, India, August 2020 (Online) • Tutor, Light and Beyond—Summer Course for Undergraduate Students by Prof. Rajaram Nityananda, June 2020 (Online) • Tutor, LIGO-Virgo Collaboration Gravitational-Wave Open Data Workshop #3, May 2020 (Online) • Tutor for the following mini-courses, ICTS Summer Schools on Gravitational Wave Astronomy, ICTS, Bengaluru, India: 	
OUTREACH	<ul style="list-style-type: none"> • Co-PI of the <i>IndiaBioscience Outreach Grant</i> to communicate science using stage theatre. • Panelist at the <i>Bengaluru: The Astronomy City</i>, a Q&A event organized for National Science Day, February 2022. • Moderated a discussion with Prof. Smitha Vishveshwara on her collaborative science theatre project <i>Quantum Voyages</i> as a part of Cosmic Zoom Online Exhibition, April 2021 • Articles on the ICTS blog: <ol style="list-style-type: none"> 1. A Conversation with ICTS Scientists Studying the Indian Monsoon, November 2019 2. Summer School on Gravitational Wave Astronomy, November 2019 • Talk titled <i>The Whats, Whys and Hows of Gravitational-wave Astronomy</i>, BMS College of Engineering, Bengaluru, November 2019 • Talk titled <i>Gravitational Waves - A New Tool for Cosmology!</i> at Vigyan Samagam, Visvesvaraya Industrial and Technological Museum, Bengaluru, India, August 2019 	
TECHNICAL SKILLS	Programming Languages - Python, C, C++, Shell Script Softwares - MATLAB, Mathematica Tools/Frameworks - L ^A T _E X, Git	
REFERENCES	Prof. Parameswaran Ajith International Centre for Theoretical Sciences (ICTS-TIFR), Shivakote, Hesarghatta-Hobli, Bengaluru, 560089, India. ajith@icts.res.in	Prof. Daniel E. Holz The University of Chicago, Michelson Center for Physics, Chicago, IL 60637, USA. holz@uchicago.edu
	Prof. Maya Fishbach Canadian Institute for Theoretical Astrophysics, 60 St George St, Toronto, ON M5S 3H8, Canada. fishbach@cita.utoronto.ca	Prof. Shasvath J. Kapadia Inter-University Centre for Astronomy and Astrophysics, Post Bag 4, Ganeshkhind, Pune, 411007, India shasvath.kapadia@iucaa.in