Jiswin Varghese

An aspiring MPhil student with a firm sense for academic excellence and fulfillment of social responsibilities, seeking a challenging opportunity while nurturing my inquisitive self to contribute the best of ability in the advancing scientific world.

Contact

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Research Experiences

2020
Independent research in the field of astrophysics and cosmology

2016
Worked as Project fellow, in a Project sanctioned by KSCST

Teaching Experiences

2022 - 2023
Al Ameen college, PG department

2021 - 2022
Wisdemy.in

Research Interests

- Gravitational Physics
- Cosmology
- Astrophysics
- Particle Physics
- General Relativity

Marks

MPhil 70%

MSc 72%

BSc 62%

Education

2019 - 2020
MPhil in Physics
Mahatma Gandhi University | Kerala | India

I have completed my MPhil in Physics from Mahatma Gandhi University, achieving a score of 70%. MG University is a highly respected institution in Kerala, India, known for promoting academic research interests and scientific growth. During my time at the university, I conducted primary research on habitable zones of binary stars, and studied advanced courses in the General Theory of Relativity. These experiences have given me valuable insights into researches in astrophysics and a deep understanding of the fundamental principles of space-time. I am confident that the skills and knowledge I have gained will enable me to make significant contributions to the field of astrophysics and cosmology.

2014-2016
MSc in Physics
Government College | Kerala | India

I have completed the course with a 72% score along with a good project in general relativity, titled "Black Holes: A general relativistic review". Here i have learned advanced topics in physics. From there I started to love theoretical physics. Government College Kottayam is an art and science college, as well as a successful research centre, run by the state government of Kerala, India.

2011-2014
BSc in Physics
St:Dominics College | Kanjirapally |India

I have completed my Bachelor course from St:Dominic's College, Kerala. From there i learned the most basic concepts of Physics and through a research project, which is a part of the curriculum, i learned the most basic concepts of carrying out researches in the subject.

Reference

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Research Projects

Effect of mass transfer in binary star habitable zone

the study shows how the habitable zone around a binary star system changes as component stars evolve and stars exchange mass with each other. The results are summarised in two papers and the first paper is in communication with IPTA

Black Holes: A general relativistic review

This project deals with the, how the solution of Einsteins field equation gave way for the theoretical study of Black Holes.

Volunteer Work

Hands on work shops
2015

along with many research activities, I took part in conducting hands on workshops at schools and colleges to encourage and inspire students to carry on research in physics

Classes for Civil service aspirants
2014

took classes on the topic of 'Scientific advancement of India in the area of space and technology' for civil service aspirants.

Teaching Experiences

2022 february - 2023 february

during this period i worked as a contract lecturer in the Postgraduate Department of Physics, Al Ameen College, Edathala, Aluva, Kerala, India. There I had a wonderful opportunity to teach mathematical physics, classical mechanics and advanced quantum mechanics to the postgraduate students. In addition to teaching, I also helped the students with their laboratory experiments, especially in the area of numerical analysis with Python programming.

Research Paper

Effect of conservative mass transfer in binary star habitable zone
(under communication with IAPT)
https://drive.google.com/file/d/1khlgNaqdKrPMZetOmaKHlDzWrUoQ0m4f/view?usp=sharing