

Aswin N

Curriculum vitae (9th Jan 2025)

✉ aswin22@iiserbpr.ac.in  [Aswin N](#)  [Aswin-Neel](#)

EDUCATION

Indian Institute of Science Education and Research (IISER) Berhampur

Expected May 2027

BS-MS, Physics

Berhampur, Odisha

- **Relevant Coursework:** Mathematical methods, Mechanics, Electromagnetism, Calculus of one variable, Waves and introductory optics, Linear algebra, Quantum physics, Multivariable calculus, Technical writing, Classical mechanics, Quantum mechanics - I, Thermal physics, Numerical methods and analysis (computational).

RESEARCH INTERESTS

I am interested in many facets of theoretical physics, particularly general relativity, its applications in astrophysics and quantum field theories, alongside some string related theories.

RESEARCH EXPERIENCE

QSO's as tracers of our Universe

Jun 2024 - Present

Advisor: Dr. Shadab Alam, TIFR Mumbai

Mumbai, Maharashtra

- * Worked on arriving at the projected correlated function to validate theory with respect to observed data from surveys like eBOSS and eROSITA.
- * Working on a relation between LSS traced by QSO's and the underlying dark matter halo mass distribution.
- * Investigating possible signatures of black hole mergers, by creating the mass merger history, to be further correlated with kick velocities in LSS.

LEADERSHIP AND OUTREACH

TEDx

May 2024 - Sep 2024

Core member + Tech lead

Berhampur, Odisha

- Lead the tech team, worked on integration with the main fest's website.
- Coordinated with tedx speakers, gained insights with regards to their expertise in their various fields.

Episteme - science magazine

May 2024 - Present

Core member + Tech lead

Berhampur, Odisha

- Managing, structuring, publishing and proof reading science communication material to be added to the magazine
- Remade the website, after a catastrophic loss of the prior one, due to hosting service migration problems.
- Handling maintenance, upkeep and updates to the website as well.

Science Sub-council

Feb 2024 - Present

Member

Berhampur, Odisha

- Hosted and participated in multiple meetings related to improvement of scientific temperament across campus students.
- Formed communication channels for active communication between the student body and the various active clubs.

Stream - Outreach

Jan 2024 - Feb 2024

Member of Organizing committee

Berhampur, Odisha

- Was an outreach event aimed at developing a scientific temperament in young school students.
- Created multiple engaging presentations and experiments, that were showcased to the students, to foster their growth and interest in the fields of astronomy, physics and programming.
- Arranged food, and other basic necessities for the visiting students.

Naxatra - Astronomy club

Dec 2023 - Present

Core member

Berhampur, Odisha

- Organized events aimed at increasing interest in, and awareness about astronomy, in a holistic and engaging manner.
- Organized telescope sessions, especially during celestial events, aimed at teaching the population of the university about the inner workings of a telescope and the skills necessary to operate one.
- Hosted multiple online and offline talks presented by both students and professors.

Lovelace society - Coding and robotics club

Sep 2023 - Present

Coordinator

Berhampur, Odisha

- Organized events and workshops to test and improve the coding skills of the participants.

137 Inverse - Physics club

Sep 2023 - Present

Core member

Berhampur, Odisha

- Organized educational and fun events to foster a scientific approach to thinking amongst college students, like, "Pandora's box" and "2024: A Space Odyssey"
- Managed the club-run physics newsletter, "Matter matters", to ensure routine and timely publishing, along with quality and reach of articles.
- Hosted, arranged and organized multiple online and offline talks presented by both professors and students.

Covid care teens - NGO

May 2021 - Dec 2021

Core member

Chennai, Tamil Nadu

- Organized and created easy access mechanisms for the large amounts of data regarding the available government and private health services during the pandemic.
- Participated in upkeep of website and management of communication channels.

COURSES AND PROJECTS

- Supervised Machine Learning: Regression and Classification | *Stanford Online*
- From big bang to dark energy | *University of Tokyo*
- Holographic Principle - Report

SKILLS

Programming: \LaTeX , Python, HTML, CSS, JS, Jupyter, Git, Linux

Other: Microsoft Office, Adobe Creative Suite