

**Job Title: Junior Research Fellow (JRF)**, Department of Physics

**Reports to: Dr. Suratna Das**, Department of Physics

**Location:** Ashoka University, Sonapat, Haryana

**Experience (in years):** MSc degree in Physics

**Nature of work:** Full Time

### About Ashoka University:

Ashoka University -India's premier interdisciplinary teaching and research university. An institution that has become a beacon of academic excellence in less than 10 years since its inception. At Ashoka, we encourage you to embrace the new, push the boundaries for continuous learning, and adapt to a world of constant change Because we believe that each Ashokan is capable of becoming a thought leader.

As part of our thriving and committed workforce, you will:

**Be Mission-Driven:** Champion interdisciplinary learning, innovative pedagogy, and academic rigor to transform Indian higher education.

**Think Strategically:** Collaborate with visionary minds to shape the future of higher education through strategic planning and a forward-thinking approach.

**Act Authentically:** Embrace authenticity and integrity, fostering an inclusive and supportive environment where every voice is valued.

**Take Accountability:** Own your work and drive positive change, as an empowering individual seeking to make a meaningful contribution.

**Build Collaboration:** Experience the power of teamwork and diverse perspectives, working collectively towards our shared goals.

**Deliver Excellence:** Strive for excellence in all aspects, upholding the highest standards of academic excellence, student support, and professional development opportunities.

At Ashoka University, we are on a mission to redefine higher education and create a remarkable space where innovation and collaboration thrive. As a **pioneering force in interdisciplinary learning**, we **continually grow and adapt** to stay at the forefront of educational excellence with emphasis on inclusivity and equal opportunity. Our philosophy revolves around **care, well-being, and connection**, which are deeply embedded in everything we do.

When you join our community, you become part of an extraordinary journey in which you can unleash your potential and make a meaningful impact. Where education empowers, where innovation thrives, and where excellence and humility coexist. We truly believe the world will enrich itself when there is progress with purpose.

### About Department of Physics:

The department of physics (<https://www.ashoka.edu.in/department/department-of-physics/>) started in 2017 and has been growing in size and scope to encompass a number of contemporary research areas. Our key focus research areas currently are Condensed Matter Physics (Soft and Hard), Biophysics, Astrophysics, Cosmology and Quantum Field theory. Please refer to the faculty profile pages for more information on the research interests of our faculty members. Our PhD program in physics was initiated in 2020. We aim to select motivated and committed students with a passion for research and to train them to be active and independent researchers. Our undergraduate physics program provides a solid grounding in the traditional core undergraduate physics curriculum and also an opportunity for students to pursue more eclectic interests in the sciences or beyond. Besides pursuing higher studies in physics, students get the necessary training and skills which can be used in other scientific fields and interdisciplinary endeavours. The details of courses (graduate and undergraduate) taught at the physics department can be found here.

### Role and Responsibilities:

Warm Inflation is a variant inflationary scenario where the inflaton field dissipates its energy to a sub-dominant constant radiation bath throughout inflation. In standard inflationary scenarios, which is often referred to as Cold Inflation, the couplings to inflaton field with other particles are considered to be negligible during inflation, and thus the inflaton does not dissipate its energy to other form of matter. The dissipation during Warm Inflation makes the inflation dynamics much more richer and intricate than in Cold Inflation. Thus many aspects of inflation which have been extensively studied in Cold Inflation, have not been explored in Warm Inflation yet. **In this project we will explore some of the unexplored aspects of Warm Inflation. The position is open with Dr. Suratna Das in the Department of Physics of Ashoka University as a part of the SERB SRG Project "Exploring the Unexplored Aspects of Warm Inflation". Remuneration will be provided according to the SERB norms.**

**Duration:** The position is for 2 year from the date of joining.

**Qualifications and Skills Required:** The candidate must have MSc degree in Physics at the time of joining. The candidate should have knowledge of Mathematica coding.

**Last date of application: March 31, 2024**

**Application Submission Process:** Interested candidate should send their application including a cover letter, CV and name and contact details of at least two referees to Dr. Suratna Das at [suratna.das@ashoka.edu.in](mailto:suratna.das@ashoka.edu.in) with a subject line <Job Name\_Applicant Name>.

**Pursuit for Excellence:** At Ashoka University, we strive for excellence in all aspects of our operations. Therefore, only shortlisted candidates will be contacted as part of our rigorous selection process.

**Adherence to Deadlines:** To ensure fairness and efficiency, please submit your application by October 31, 2023. Applications received after the deadline will not be considered.

We look forward to receiving your application as we embark together on a remarkable journey of professional growth and development. Join our exceptional community at Ashoka University, where excellence is nurtured, and aspirations are transformed into reality.