

Press Release

JMI inaugurates 4-day international conference on '*Cross-Survey Cosmography*' today; Leading international and national experts discuss key challenges in modern cosmology

New Delhi, April 8, 2026

The Centre for Theoretical Physics (CTP) at Jamia Millia Islamia (JMI), in collaboration with the Inter-University Centre for Astronomy and Astrophysics (IUCAA), today inaugurated a four-day international conference titled "*Cross-Survey Cosmography: Precision Cosmology, Emerging Tensions and New Physics*." The conference, held at the CTP Seminar Hall, brings together leading experts, researchers, and young scholars to address some of the most intriguing challenges in modern cosmology, including precision measurements of the universe and discrepancies in key cosmological parameters that hint at potential new physics. A diverse group of participants from Jamia Millia Islamia and leading Indian institutions such as the Indian Institute of Technology (IIT), Tata Institute of Fundamental Research (TIFR), Inter-University Centre for Astronomy and Astrophysics (IUCAA), Jawaharlal Nehru University (JNU), University of Delhi, and BITS Pilani are participating in the conference. Prominent international participants from the Space Telescope Science Institute (STScI), University of Birmingham, University of Sheffield, University of California Berkeley, University of Cambridge, and the University of Tartu, Estonia too are taking part in the four-day deliberations showcasing the strong national and international engagement of the conference.

Prof. Mazhar Asif, Hon'ble Vice-Chancellor JMI, delivered a profound and wide-ranging Presidential Address in the inaugural address which commenced with the recitation of the Holy Quran and the Jamia Tarana, followed by a formal felicitation of the dignitaries. Reflecting on the theme of the conference, he offered a spiritual and philosophical perspective on the notion of "emerging tensions" in cosmology. He observed that while scientists speak of discrepancies and anomalies in observational data, the Creator's design of the universe is flawless and without anomalies. He suggested that what appear as tensions in our measurements may instead be limitations in our current understanding or tools, and that the pursuit of new physics is ultimately a journey toward a deeper appreciation of the harmony embedded in creation.

The Vice-Chancellor then turned to the role of education and the unique ethos of Jamia Millia Islamia. He emphasized that the university's mission extends far beyond

producing graduates with high grades or research publications. "Our foremost duty," Prof. Asif stated, "is to train our students to become good human beings—individuals of character, integrity, and compassion." He elaborated that JMI's holistic approach to education nurtures critical thinking, ethical grounding, and a sense of social responsibility. Highlighting the distinctive character of the university, Prof. Asif noted that **Jamia Millia Islamia is a unique institution that truly embodies the concept of "KG to PhD,"** offering a complete and continuous educational journey within a single campus. From its well-established school system providing foundational education at the kindergarten and senior secondary levels, the university seamlessly progresses to a wide range of undergraduate and postgraduate programs in disciplines such as science, humanities, engineering, and social sciences, and further extends to advanced research through strong PhD programs. Over the years, Jamia has also made a significant contribution to the nation by producing numerous successful candidates in the civil services, including Indian Administrative Service and Indian Police Service officers, reflecting its commitment not only to academic excellence but also to public service and nation-building. He expressed confidence that young researchers trained in such an environment would not only excel in cutting-edge science but would also apply their knowledge for the betterment of humanity.

Prof. Asif also noted that we are living in a "data-rich era of cosmology" and that India is playing an increasingly important role in global scientific research. He lauded the CTP as one of the country's leading research centres and urged young M. Sc. and Ph.D. students to actively interact with the eminent experts present at the conference. "Such interactions," he said, "are essential for nurturing young minds and strengthening our academic community."

Prof. Sushant G. Ghosh, Director of CTP and Chair of the Organizing Committee, delivered the welcome address. He highlighted that cosmology stands at a "fascinating crossroads," where high-precision observational data is both mapping the universe's evolution and challenging existing theoretical frameworks. "Emerging tensions open exciting avenues for new physics," Prof. Ghosh stated, emphasizing the workshop's goal to foster collaborations that bridge these gaps.

He also showcased the CTP's stellar achievements, including the **President of India's Visitor's Award for Research (2015)**, multiple **IOP Publishing Top Cited Paper Awards (2022, 2024, 2025)**, and a place in the **Stanford list of the top 2% of scientists (2020–2024)**. The centre boasts nearly **30,000 research citations**, approximately **600 publications** in high-impact international journals, and has produced **40 PhDs**, with **20 scholars** securing postdoctoral positions at renowned international institutions.

Prof. Anjan Ananda Sen and Dr. Anupam Bhardwaj, the conference coordinators, addressed the gathering, highlighting the importance of collaboration and discussion in advancing cosmology. Prof. Sen of JMI emphasized the role of cross-survey studies in addressing challenges like the Hubble constant tension and appreciated the platform for young researchers, while Dr. Bhardwaj from Inter-University Centre for Astronomy and Astrophysics highlighted the value of institutional collaboration, the role of ICARD.

Prof. Saeed Uddin, Dean of the Faculty of Sciences, delivered a stirring address in which he welcomed participants from across the country and abroad. Speaking on behalf of the Faculty of Science, he reaffirmed JMI's commitment to academic excellence and intellectual curiosity. Prof. **Saeed** particularly praised the Centre for Theoretical Physics for its significant contributions to black hole physics, gravitational lensing, black hole shadows, cosmology, and modified theories of gravity. He acknowledged the dedicated leadership of Prof. Sushant Ghosh in strengthening research and guiding young scholars.

The conference has been made possible through the generous sponsorship of **IUCAA, JMI** and the **Anusandhan National Research Foundation (ANRF)**. It is part of IUCAA's initiative to establish centers for astronomy research and development (ICARD) at various universities. The CTP's ICARD aims to develop innovative teaching methods, hold workshops, and promote scientific dialogue.

The event will continue until April 11, 2026, featuring technical sessions, discussions on precision cosmology, and opportunities for young researchers to present their work.

Prof. Saima Saeed
Chief Public Relations Officer


