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Press Release

### **JMI hosts Indo-South Africa Workshop on Astrophysics (ISAWA-2023)**

The Centre for Theoretical Physics (CTP), Jamia Millia Islamia (JMI) successfully hosted Indo-South Africa Workshop on Astrophysics (ISAWA-2023), a pioneering collaborative effort between India and South Africa in astrophysics. The workshop started on 27<sup>th</sup> September and ended on 29<sup>th</sup> September, 2023. The inaugural event was attended by Prof. Sunil Maharaj, University of Kwa-Zulu Natal (UKZN), Durban, South Africa, Prof. (Dr.) Eqbal Hussain, Pro-Vice-Chancellor (PVC), JMI and Prof. Sushant Ghosh of CTP, JMI. Prof. Eqbal Hussain emphasized the importance of international collaboration in advancing scientific research graced the inauguration ceremony.

ISAWA-2023, hosted at the esteemed JMI campus, serves as a platform for astrophysicists, researchers, and scholars from India and South Africa to come together, exchange ideas, and foster a deeper understanding of the universe. This collaborative initiative aims to strengthen the scientific ties between the two nations and speed up progress in astrophysics.

Distinguished astrophysicists and scholars, Professor Sunil Maharaj from the University of Kwa-Zulu Natal (UKZN), Durban, and Professor Sushant Ghosh from CTP, Jamia, provided insights into the Indo-South Africa collaboration and the goals of ISAWA-2023. The workshop aimed to foster knowledge exchange, facilitate research partnerships, and explore cutting-edge topics in astrophysics.

Prof. Sunil Maharaj delivered a captivating plenary talk in the inaugural session on the intriguing subjects of gravity and higher dimensions. Prof. Mayukh Gangopadhyay from SGT University, Gurugram, delivered an enlightening plenary talk on "Gravitational Waves & Primordial Black Hole: Next Frontiers of Precision Cosmology." Dr. Sayantan shared valuable insights into "Quantum Field Theory Primer of Primordial Black Hole Formation: An Ultimate Roadmap for Cosmology," sparking discussions about the fundamental aspects of the universe. Dr. Dibya Chatterjee from Ashoka University intrigued the audience with a talk titled "The Conspiracy of dS Space in String Theory (?)," exploring mysterious dimensions in theoretical physics. Professor Kesh Govender from UKZN delved into the "Analysis of Some Equations Arising in General Relativity," shedding light on advanced mathematical aspects of astrophysics.

The workshop encompassed four plenary talks and seven invited talks, each shedding light on various facets of astrophysics, from theoretical concepts to innovative research.

ISAWA-2023 attracted the participation of 40 attendees, including ten esteemed scholars from South Africa. The event promoted cross-border collaboration and fostered an environment of academic excellence and knowledge-sharing.

This collaboration between Indian and South African scholars at ISAWA-2023 promises to contribute significantly to advancing astrophysics and our understanding of the universe.

Highlights of the Indo-South Africa Collaboration:

1. **Knowledge Exchange:** The collaboration brings together the best minds from India and South Africa to share their expertise and knowledge in astrophysics, promoting a holistic understanding of the subject.
2. **Research Opportunities:** ISAWA-2023 opens doors for joint research projects, enabling scientists to collaborate on cutting-edge astrophysical research, including topics like cosmology, gravitational waves, black holes, and more.
3. **Educational Initiatives:** The collaboration includes educational programs, student exchanges, and mentorship opportunities to nurture the next generation of astrophysicists and scientists in both countries.
4. **International Networking:** ISAWA-2023 provides a global platform for networking, enabling participants to build connections with peers and experts from diverse backgrounds.

Public Relations Office  
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