

**Exploring The Universe**  
**A one day workshop jointly organized by**  
**IQAC & Department of Mathematics, Shri L B S Degree College, Gonda**  
**& ICARD, DDU Gorakhpur**  
**22 November, 2019**

## One-Day Workshop Report: "Exploring The Universe"

Held on 22 November 2019 at Shri L.B.S. Degree College, Gonda

On November 22, 2019, Shri L.B.S. Degree College in Gonda hosted an enlightening one-day workshop titled "Exploring The Universe". The event brought together M.Sc. Students and bright students of B.Sc. from Shri L.B.S. Degree College, Gonda, Raghukul Vidhyapeeth, Gonda, K.D.C. Bahraich, and M.L.K.P.G. College Balrampur, providing them with a unique opportunity to delve into the complexities and wonders of the cosmos.

**Exploring The Universe**

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Department of Mathematics,  
Shri Lal Bahadur Shastri Degree College, Gonda and  
ICARD, DDU Gorakhpur University  
Date: 22 November 2019

*Astronomy and Astrophysics (A&A) is an attractive area for students from curiosity point of view but very few choose to take it up as a career option. With the recent involvement of India in several international and large scale projects related to A&A there is increase in opportunities for those interested. The aim of the present workshop is to introduce the students basics of A&A as well as make them aware of different opportunities available in this exciting field.*

**Program**

**1. Lectures**  
Prof. T.R. Seshadri, Delhi University, New Delhi  
Prof. Durgesh Tripathi, IUCAA, Pune  
Prof. A.N. Ramprakash, IUCAA, Pune  
Prof. Shantanu Rastogi, DDU Gorakhpur University  
Dr. Sanjay K. Pandey, Shri Lal Bahadur Shastri Degree College, Gonda

**2. An Interaction Session**  
*Participants will get an opportunity to interact with speakers regarding their various curiosities and future prospects in the field of Astronomy and Astrophysics.*

**Patron**  
Dr. V. Saraswat, Principal, Shri Lal Bahadur Shastri Degree College, Gonda

**Organizing Committee**  
Prof. Durgesh Tripathi - Coordinator  
Prof. Shantanu Rastogi - Coordinator, ICARD  
Dr. Sanjay K. Pandey

**How To Apply**  
Outstation students may write an email to [2ndgondaworkshop@gmail.com](mailto:2ndgondaworkshop@gmail.com) mentioning their name, class, college, contact number and reason for participation. Local students may contact Dr. Sanjay K. Pandey for further information.

The workshop featured a series of expert talks by distinguished speakers from renowned institutions, each covering different aspects of astronomical sciences. The day began with an introduction by Prof. Sanjay K Pandey from Shri L.B.S. Degree College, who set the stage for the day's journey through the universe.

In the inaugural session, Shri Satyadev Singh Ji, Vice President of college management committee encouraged the students to participate in such workshops and seminars. He thanked the speakers to give their precious time to this event. Shri Umesh Shah,

secretary of management committee assured the faculty members and students that management is always ready to provide any kind of support for the advancement of the students through such events. Dr. Vandana Saraswat, officiating Principal of the college, motivated the students to participate in such events and introduced them with some upcoming events. Dr. Veena Singh, Associate Professor, Department of Mathematics, M.L.K PG College, Balrampur participated in the workshop as a special guest along with other faculty members

The first session was led by Prof. Durgesh Tripathi from IUCAA, Pune, who presented on "The Sun." His talk provided insights into the latest research about our closest star, its structure, and its impact on the solar system. His engaging presentation style made complex solar phenomena accessible to all attendees.

Following this, Prof. Shantanu Rastogi from D.D.U. Gorakhpur University captivated the audience with his discussion on the "Chemical Evolution of the Universe." He explained how elements are formed in the cores of stars and spread across the universe, contributing to the formation of new stars and planets. His ability to connect chemical processes to everyday astronomical observations was particularly appreciated.

All speakers, organising committee members, guests and students were provided snacks and lunch during the workshop



Prof. Kanak Saha from IUCAA took the stage next to explore the topic of "Galaxies." His detailed analysis of the formation and interaction of galaxies provided a deeper

understanding of the structure of the universe. Through stunning visuals and simulations, Prof. Saha illustrated the dynamic processes that govern galactic development and evolution. His overview of lenticular galaxies was very impressive.

The complexities of "Star Evolution" were adeptly handled by Prof. Saurabh from ARIES, Nainital. He outlined the life cycle of stars, from their fiery births in nebulae to their ultimate fate as white dwarfs, neutron stars, or black holes. His session included simulations that showed the dramatic changes stars undergo in their lifetimes, which was a highlight for many attendees.

Concluding the day, Prof. Sanjay K Pandey returned to discuss the "Universe in Different EM Bands." His presentation revealed how different electromagnetic wavelengths provide varied and complementary views of the universe. From radio waves capturing the cosmic microwave background to X-rays revealing the violent phenomena in the cosmos, Prof. Pandey demonstrated the importance of multi-wavelength astronomy.

The workshop not only enhanced the students' understanding of the universe but also inspired a sense of wonder and curiosity about the cosmos. The sessions were interactive, with students engaging in question-and-answer round, eagerly discussing their thoughts and seeking further clarifications on complex topics. Students written feedback was a special feature of the workshop.



"Exploring The Universe" was a successful event that achieved its aim of fostering a deeper appreciation and understanding of the cosmos among young scholars. The workshop underscored the collaborative spirit of the astronomical community and the educational institutions involved, making it a memorable learning experience for all participants. In the last session, Mr. Manish Sharma, Assistant Professor, Department of Mathematics, passed a vote of thanks to all the guests, speakers, faculty members of the college, non-teaching staff, media personnel and participating students of all institutes.

Some sample of collected feedback

