





A REPORT ON
Webinar on “Fantastic black holes and where to find them”

1. Name of the Event: Webinar on “Fantastic black holes and where to find them”
2. Duration, and Date: 9th November, 2020
3. In collaboration with (*if any, mention the name of the organization or individual or others*): IUCAA Centre for Astronomy Research & Education (ICARD), Tezpur University
4. Number of participating students: [*Please enclose the certified list of students*]: **ONLINE**
5. Number of resource persons (*if any*): 01
6. Names, affiliation, and contact of resource persons: Prof. Somak Raychaudhury, Director, IUCAA, Pune
7. Summary of the event: Speaker introduced the concept of black holes and explained the work of Nobel prize winners for Physics in the year 2019, namely Roger Penrose, Andrea Ghez and Reinhard Genzel.
8. Photographs with captions, and dates:

Screenshot captured during the talk

Myths about Black holes

- BHs are not cosmic vacuum cleaners: only inside the horizon is matter pulled inexorably inward
- Far away from a BH, gravity is no different than for any other object with the same mass
- If a BH were to replace the sun, the orbits of planets, asteroids, moons, etc., would be unchanged (though it would get really really cold).



Somak Raychaudhury

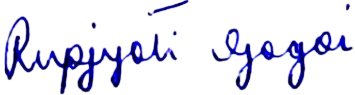

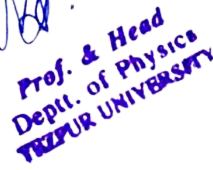


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9.

Signatures of Conveners/ Chair/ Coordinator/ In-charge	Signature and Seal of Head of Department/ Centre/ Cell
 Name: Dr Rupjyoti Gogoi Designation: Assistant Professor	  Name: Prof. M.K. Das Designation: HoD
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Poster for the event:

The poster features a blue and white wavy background with a central image of a black hole. It includes logos for ICARD and Tezpur University at the top. The text is organized into sections for speaker information, title, and contact details.

Webinar organised by,
IUCAA Centre for Astronomy Research & Development, Tezpur University
&
Department of Physics, Tezpur University

Date: November 9th, 2020
Time: 03:30 pm

Speaker: Prof. Somak Raychaudhury

Somak Raychaudhury is the Director of the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune. He graduated from Presidency College, University of Calcutta, with further studies at the University of Oxford, UK. After his PhD from the University of Cambridge, UK, he worked at the Harvard-Smithsonian Centre for Astrophysics, USA, where he also was part of the team that built the Chandra X-Ray Observatory for NASA. After teaching for over a decade at the University of Birmingham, UK, he returned to India as Head of Physics and Dean of Sciences at Presidency University, Kolkata, before he became Director of IUCAA. His research involves a wide range of topics in Cosmology and Astrophysics, from the ground and from Space.

Title: Fantastic black holes and where to find them

Black holes are the most extreme environments in nature, where the force of gravity is so strong that even light cannot escape. Since we observe the rest of the Universe through light, black holes must be directly unobservable. Theories of stellar evolution predict that black holes of various masses must be everywhere in the Universe. In the last decade, direct evidence of black holes have been found in many ways. This year's Nobel prize in Physics has been awarded for both theoretical work on understanding these exotic objects (Roger Penrose) and detecting and characterising the supermassive black hole at the core of our Galaxy (Andrea Ghez and Reinhard Genzel). The speaker will discuss their work, and the connection with past, present and future research and opportunities in India.

Organising Team

Prof. Nilakshi Das
Head, Department of Physics

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