



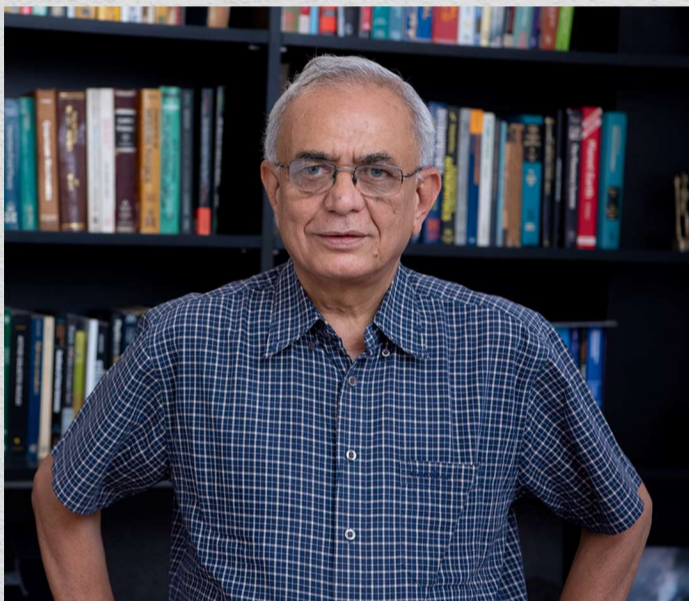
# Indian Institute of Technology Kanpur

## INSTITUTE LECTURE SERIES

March 29 (Tuesday), 2022 | L-18 | 6.00 pm

**Speaker: Prof. Ajit Kembhavi**

### **The First Image of a Black Hole & The First Detection of a Lone Black Hole**



March 29 (Tuesday) | L-18  
| 6.00 pm |

The lecture will be in a hybrid mode. Webinar link will be shared in a separate mail.

#### About the Talk

The bending of light by gravitational fields is one of the three famous predictions of Einstein's general theory of relativity. Einstein predicted a specific value for the bending, which was confirmed by Eddington and his colleagues from observations made during a total Solar eclipse in 1919. In recent decades gravitational lensing, which arises due to gravitational light bending has become a very important tool for astrophysics and cosmology. The extreme bending of light in the vicinity of black holes has been used to present the first image of a black shadow announced in 2019. Similarly, gravitational lensing has led to the possible discovery of a lone black hole. The speaker will discuss these recent developments in a form suitable for a general IIT audience.

#### About the Speaker

Ajit Kembhavi is a Professor Emeritus and former Raja Ramanna Fellow at the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune. He did his Ph. D. from TIFR and was a post-doctoral fellow at the Institute of Astronomy, of the University of Cambridge.

Prof. Kembhavi is an astronomer. He works on galaxies, quasars and other extragalactic objects, various areas of high energy astrophysics, X-ray and radio pulsars, and the application of AI to astronomy and biology. He has published a large number of research papers and several books. He has led the Virtual Observatory-India project. He is the Principal Investigator of the recently launched Pune Knowledge Cluster. He is one of the key persons responsible for India joining the Thirty Metre Telescope (TMT) project as a partner and taking up the LIGO India project.

All are cordially invited to attend

Covid protocols to be followed strictly

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