



# Mr. Kaustubh Vaghmare

Research Scholar | IUCAA

## Biography

Kaustubh Vaghmare is a research scholar at IUCAA, who has just finished his PhD thesis on observational studies of lenticular galaxies. He has completed his thesis under Prof. Ajit Kembhavi, the former director of IUCAA.

Kaustubh's research interests include optical and infrared photometry and spectroscopy. He has used data from telescopes such as Spitzer and the Southern African Large Telescope to study nearby galaxies. Kaustubh is also interested in transients, specifically - estimation of real variabilities of astronomical sources and identifying counterparts to low resolution X-ray detections.

He was involved in the Virtual Observatory India chapter and helped develop tools like the CRTS data portal, AstroStat etc. He has also been training astronomers from both India and abroad in Python, Virtual Observatory and astronomical data analysis.

He is also interested in the methods of big data analysis and application of machine learning techniques for exploration of scientific data.

## Abstract on the Topic of the Presentation

The speaker will give a feel for how there has been a recent explosion in the volume of data made available to the astronomers. He will discuss the importance of archiving the data and the need for standard methods and protocols for storing and transferring the data.

He will explain the concept of Virtual Observatory and how it has helped tackle some of the issues of handling big data in astronomy. The speaker will then summarize the goals of a planned project in partnership with the NKN and the Regional Centre for Biology(RCB) to tackle big data by incorporating methods and expertise in fields of both astronomy and biology.