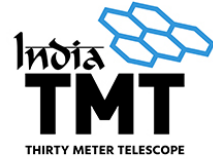# Project: Thirty Meter Telescope (TMT)
Prof. Sivarani Thirupathi, Indian Institute of Astrophysics, Bengaluru

Abstract:

- Thirty Meter Telescope (TMT) is one of the most ambitious optical and infrared observatories that will be operational during the 2030s. TMT project is a partnership between Canada, China, India, Japan, and the USA. The 30-meter primary mirror will use segmented mirror technology that is scalable for the future larger telescopes on the ground and in space. TMT will have one of the most advanced multi-conjugate adaptive optics system that will provide 12-times sharper images of the sky compared to the Hubble space telescope. TMT will address the most fundamental questions in astronomy, the nature and composition of the Universe, First Stars and galaxies, the relationship between blackholes and galaxies, star and planet formation and signs of life elsewhere in the Universe. In this talk, we present an overview of the scientific capability of the TMT observatory and discuss India's role in science and technology development.

About the Speaker:

- Sivarani Thirupathi is an associate professor at Indian Institute of Astrophysics, Joined IIA in 2009. Before joining IIA she was CNRS-postdoc. in France, INAF-postdoc at Observatory Trieste, Joint institute for nuclear astrophysics (JINA) research associate at Michigan State and SDSS postdoc. at U.Florida. She was awarded as an architect of SDSS-III-MARVELS project for her significant contribution to the pipeline. She is one of the science working group lead for the Maunakea Spectroscopic Explorer project. She is currently member of TMT Science advisory committee and co-chair from India. She was a project manager for the Hanle High resolution Echelle spectrograph and work package manager for the TMT first light instrument WFOS until 2019. Currently she leading the development of TMT high resolution optical spectrograph collaboration as a principle investigator. Her science interests are early chemical evolution of the Galaxy and its First stars. She has more than 160 research Publications and 13800 citations.