

Thirty Meter Telescope for next generation Astronomy

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Abstract

Many unsolved fundamental issues such as the formation of planetary systems, the existence of life beyond our solar system, formation and evolution of stars and galaxies, and existence of the dark energy believed to be causing the Universe to accelerate etc. led the astronomers to propose to build the ground-based next generation mega optical and infrared telescope i.e; Thirty Meter Telescope (TMT). The project cost and the technologies involved in TMT are such that no single country/institute can afford to build and sustain such facility on its own. So, the TMT project is led by the University of California, Caltech (USA), Canada, Japan, China and India. The TMT project is in the design and construction phase and expected to be operational by 2026. For India, it is an excellent opportunity to invest for future generations to pursue their diverse astrophysical interests and also to increase technical capability in this field.