



Project: Major Atmospheric Cherenkov Experiment (MACE)

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MACE Gamma-Ray Telescope

Abstract:

- A large imaging atmospheric Cherenkov telescope MACE (Major Atmospheric Cherenkov Experiment) is being set up at Hanle, Ladakh by the HiGRO (Himalayan Gamma-Ray Observatory) collaboration comprising BARC, TIFR and IIA. The 21m diameter light collector of the telescope comprises 356 mirror panels of size ~ 984 mm x 984 mm where each panel consists of 4 indigenously developed diamond turned aluminium honeycomb mirror facets. The imaging camera of the telescope employs 1088 photomultiplier tubes and covers a field of view of $\sim 4.3^\circ \times 4.0^\circ$ with a resolution of $\sim 0.125^\circ$. Designed to operate at a trigger threshold energy ~ 20 GeV (1 GeV = 10^9 eV), the telescope will play an important role in understanding very high energy processes in the Universe. Scientific objectives of the MACE telescope, its key design features and current status of the telescope will be presented in the talk.

About the Speaker:

- Dr. A.K.Tickoo completed his Master's degree in Physics in 1981 from Kashmir University. He is from the 30th batch (Physics discipline) of the BARC training school and has been associated with the gamma-ray astronomy programme of the Astrophysical Sciences Division for the last 32 years. He obtained his Ph.D degree from Mumbai University. At present he is the Head of Astrophysical Sciences Division of BARC and is contributing towards setting up of the 21 m diameter MACE (Major Atmospheric Cherenkov Experiment) telescope at Hanle.

