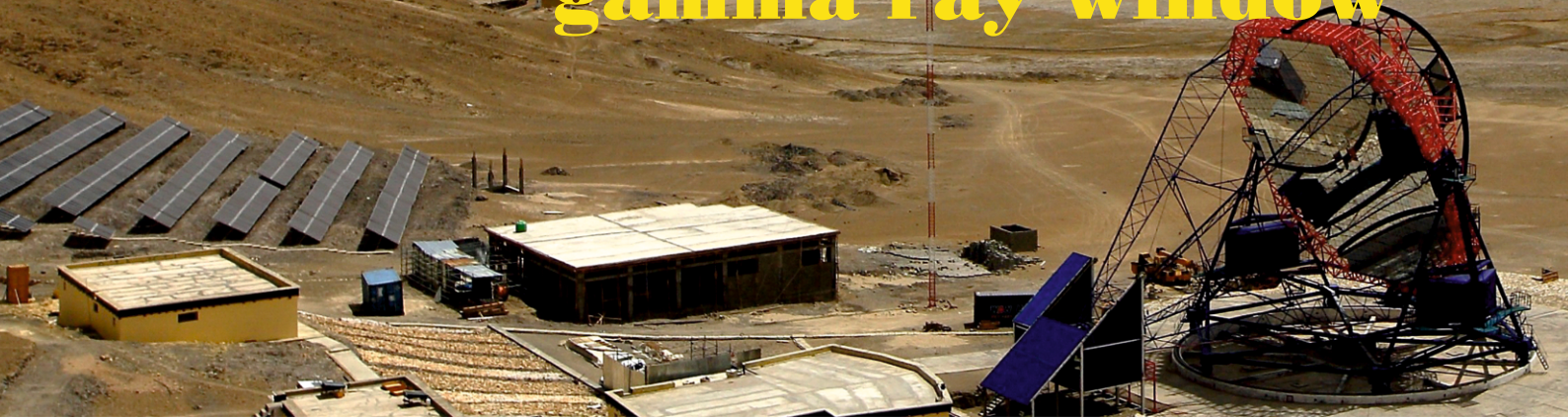


Eyeing the Universe through the gamma ray window



foreword



I am pleased to write this foreword to the special issue of BARC Newsletter on the MACE gamma-ray telescope on the occasion of Azadi Ka Amrit Mahotsav. This provides descriptive details of the science and technology involved in the indigenous design and development of the 21m diameter state-of-the-art telescope in the country. The telescope is successfully commissioned at Hanle in the Ladakh region in September 2021 and has started its regular science observations. Establishment of the MACE telescope at this site in the Himalayan desert is the first major step in the direction of creating a world-class astronomical observatory for carrying out front line research in the field of very high energy astrophysics in India. Given its size, MACE belongs to the class of extremely large gamma-ray telescopes operating around the globe. Its location has the distinction of being at the highest altitude in the world for this class of telescopes.

The MACE telescope is an exemplary outcome of the spirit of *Atmanirbhar Bharat* as its various subsystems have been designed and developed in various Divisions/ Groups in BARC, Mumbai and ECIL Hyderabad. Along with the fact that MACE gives a fresh impetus to the Indian researchers to carry out advanced research in the field of very high energy astrophysics as well as multi-messenger astronomy, it also offers new opportunities in science and life to the local population in the Union Territory of Ladakh and the neighboring states. The state-of-the art observatory is deemed to inculcate scientific temperament and innovative thinking of young minds, and help in their academic growth.

I feel happy and proud to be part of this scientific and technological development in the DAE. I take this opportunity to express my sincere gratitude to Shri K. N. Vyas, Chairman, AEC and Secretary, DAE, and Dr A. K. Mohanty, Director, BARC for their continuous encouragement, support and guidance on the development and commissioning of the telescope. I also thank all the senior colleagues from BARC who have contributed at different stages of the MACE evolution and development. I congratulate the MACE team and wish them a great success in future.

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