



Dr. Homi Bhabha / IUPAP Award Lecture Cosmic Rays from our Galaxy

By

Prof. Heinrich J. Voelk

Max Planck Institute, and University of Heidelberg, Germany

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Venue : Dr. Homi Bhabha Auditorium, TIFR

Abstract:

Cosmic Rays discovered a century ago, when arrive at Earth produce showers of particles in the atmosphere. The shower theory was developed by Bhabha, and Heitler eighty years back. Cosmic rays are accelerated by shock waves in Supernova Remnants that are result of explosions of stars at end of their evolution. Cosmic Rays accelerated in sources are studied through Gamma rays, results of those studies will be compared with theoretical models. Propagation of Cosmic Rays in Milkyway along with its dynamical partners of interstellar gas, and magnetic field produce a Galactic Wind in which Cosmic Rays, and thermal matter diffuse into intergalactic space. The winds from Milkyway, and neighboring galaxies form a "Local Group Bubble" whose dynamical role in the Universe will be explored.

About the speaker:

Prof. Heinrich J. Voelk, is an internationally renowned scientist in the field of Cosmic Ray Physics. After graduation, he did research on plasma physics for Ph.D. at the University of Munich, Germany. Prof. Voelk has, and continues to collaborate with a large number of scientists around the globe. Prof. Voelk is at Max Planck Institute of Nuclear Physics, and University of Heidelberg. He is a recipient of the Descartes Prize by the European Union, and The Rossi Prize by the American Astronomical Society. He is the second winner of the Homi Bhabha Award instituted by TIFR and IUPAP.



Cosmic Ray Shower



Scintillator Detector



Winter School 2014



Proportional Counter



Proportional Counter Testing