Astronomy & Astrophysics Division Seminar

Title : The Largest Particle Accelerators of the Universe

Speaker : Dr. Kamlesh Rajpurohit (TLS Observatory, Germany)

Date : 13.09.2018 (Thursday)

Time : 16:00 Hrs

Venue : Seminar Room # 113/114 (Thaltej Campus)

Abstract:

Galaxy clusters are the most massive, gravitationally bound systems in the Universe and are unique laboratories to probe the physics of particle acceleration and magnetic field properties. Galaxy clusters are formed by accretion of gas and mergers with other clusters and galaxy groups. During cluster formation processes, some of the energy released is channeled into merger driven shocks and turbulences, leading eventually to the acceleration of particles to relativistic energies. However, the underlying particle acceleration mechanism is still being debated. In this talk, I will discuss how merging galaxy clusters can act as giant cosmological particle accelerators and about the magnetization of the intra-cluster medium.
