

Title: Radio mode feedback and mass distribution in clusters in SKA era

Author: M. Pandey-Pommier et al.

Abstract: The role of radio mode feedback is crucial in regulating the temperature and density distribution of the intra-cluster medium (ICM). Active Galactic Nuclei (AGNs) residing within the ICM emit jets spanning kpc-Mpc scales, consisting of high-energy particles and non-thermal radio emissions. These jets interact with the ICM, injecting substantial energy into the cluster medium and effectively heating its surroundings, thereby preventing excessive cooling. This presentation will discuss recent findings from a study on a sample of clusters, focusing on their thermal properties, the contribution of radio mode feedback from central galaxies, and its impact on regulating cluster dynamics. Finally, we will discuss the anticipated advancements in such studies enabled by the SKA era.