

Jeudi 7 mars 2024 à 11h (IAS, bâtiment 121, salle 1-2-3)

The structure of Galaxy Clusters & the cosmological model

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Galaxy clusters are the largest gravitationally bound objects in our Universe, are dark-matter dominated, and have the baryonic mass component mostly composed by X-ray emitting plasma also observable through Sunayev-Zeldovich effect at millimeter wavelengths. Thus, X-ray (and SZ) data provide a unique view of their structure.

I will present the current observational constraints on the fundamental properties defining this structure, how these constraints align with the prevailing cosmological paradigm, what are the outstanding issues, and what are our strategies to address them with the current (Chandra, XMM-Newton, XRISM, eROSITA) and the next generation (Athena) of X-ray observatories on the to construct a consistent picture of how galaxy clusters form and evolve.