## Baryons in the Universe 2024



Contribution ID: 25

Type: not specified

## Hot galactic atmospheres as laboratories of baryon cycling and enrichment

Tuesday, 9 April 2024 14:50 (20 minutes)

Most galaxies comparable to or larger than the mass of the Milky Way host hot, X-ray-emitting atmospheres and central radio sources. Hot atmospheres and radio jets and lobes are the ingredients of radio-mechanical active galactic nucleus (AGN) feedback. Nearby massive elliptical galaxies are excellent laboratories for the study of AGN feedback and its role in the redistribution of baryons in the Universe, as well as for the study of chemical enrichment. We will present the results of systematic X-ray spectral imaging studies of a large sample of around 100 Chandra-observed nearby giant elliptical galaxies, complemented with 60 more distant clusters, focusing on the physics of AGN feedback and chemical enrichment. The presented results form an essential anchor for numerical simulations.

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