The virial relations for relaxed lensing clusters observed with Chandra

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Abstract

We determine the virial relations linking mass, X-ray temperature and luminosity for a sample of luminous, relatively relaxed clusters of galaxies observed with the Chandra Observatory, for which precise, independent confirmation of the mass results is available from gravitational lensing studies. We compare the observed results with the predictions from numerical simulations and show that this comparison places firm constraints on current cosmological models.

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