

18 December 2008, Osservatorio Astronomico di Capodimonte, auletta G. Piazzini

Massimo Meneghetti

INAF OABo

Comparison of lensing and X-ray mass estimates in simulated galaxy clusters

We use realistic lensing and X-ray simulations to compare mass estimates for a sample of numerically simulated galaxy clusters. The simulations are performed using novel codes that allow to mimic observations with optical and X-ray telescopes, including a large number of noises present in real astronomical data. Such mock observations are analyzed using standard tools to derive the mass profiles. We compare the mass estimates obtained from strong and weak lensing to those obtained from X-ray analysis assuming hydrostatic equilibrium. We explore the systematics of the methods and discuss the origin of possible mismatches present in real observations.