

Imaging Dark Matter via Gravitational Lensing

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Most of the Universe (the dark matter and the dark energy) is transparent, and therefore can't be imaged directly. However, the dark matter can still be imaged through the effect of gravitational lensing, wherein the curvature of the space caused by the dark matter is mapped through the distortions of the images of background light sources. I will discuss the advances in our understanding of dark matter that have resulted since gravitational lensing was first observed 40 years ago, and present new techniques that are allowing us to greatly increase the resolution with which the mapping is being made.