

Observations of the Einstein Cross with CanariCam

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Abstract

We present mid-IR observations taken with CanariCam at Gran Telescopio Canarias of the quadruply lensed quasar QSO2237+0305. We have obtained flux ratios between the four images that, unlike optical, near-IR and, to a lesser extent, radio emission, are unaffected by the ISM (extinction/scattering) or stellar microlensing. We are using these flux ratios to obtain a mass model for the lensing galaxy and test for the presence of CDM substructure. We also compare these “true” ratios to the (stellar) microlensed flux ratios observed in the optical/near-IR to constrain the structure of the quasar accretion disk and the fraction of the lens mass in stars as compared to dark matter.