

Measuring matter perturbations with weak lensing of supernovae

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Abstract: Soon the number of type Ia supernovae (SNe) measurements should surpass 10^5 . Understanding weak lensing effects in these objects will then be more important than ever. Although SNe lensing is usually seen as a source of systematic noise in this talk I will show how this noise can be in fact turned into signal. I will thus first describe how we were able to accurately model the lensing effects. I will then use these fits to show that the SNe Hubble diagram dispersion is basically modulated by Ω_m and σ_8 . I will argue that the modelling of this dispersion allows for an independent measurement also of σ_8 with supernova data. I will finally show some results using real data.

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