SNe Ia intrinsic scatter systematic in $f\sigma_8$ measurements

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Type Ia supernovae have been widely used to constrain the dark energy density and its equation of state parameter. The statistics and homogeneity expected from new generations of photometric surveys such as ZTF and Rubin-LSST will allow us to use SNe Ia to probe large-scale structures and make new constraints on parameters including the growth rate of structure, $f\sigma_8$. To prepare for these analyses, we need to identify and study the impact of SNe Ia systematics on the measurement of $f\sigma_8$. In the recent DES analysis, the intrinsic scatter model of SNe Ia was found to be the main systematic in the dark energy equation-of-state parameter. In this talk, I present my current work to explore the impact of this systematic on $f\sigma_8$ using simulations of Rubin-LSST.

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