

Measurement of the anisotropy of cosmic expansion on ZTF type Ia supernovae simulations

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The cosmological principle assumes the isotropy of the Universe. The high coverage of the Zwicky Transient Facility survey (ZTF) makes it possible to carry out an unprecedented study of the veracity of this principle by using observation of type Ia supernovae (SNe Ia).

This unique low redshift ($z < 0.15$) survey with more than 3000 SNe Ia in the second data release (ZTF-DR2-SNe Ia) increases by a factor 10 the current low-redshift statistics. Its sky coverage, which represents more than the Northern sky, allows to develop new cosmological analysis such as the study a possible anisotropy of H_0 . In this talk, I will present a preliminary analysis attending to quantify the sensitivity of detecting anisotropies, like a dipole effect, with realistic simulation reproducing the ZTF-DR2-SNe Ia.

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