

Cosmology with Type Ia supernovae

Searching for systematics and model independent reconstructions

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For more detail, see the online poster and
Koo et al. 2020, ApJ, 899, 9 (arXiv:2001.10887)
Kazantzidis et al. 2020, arXiv:2010.03491
Koo et al. 2020, arXiv:2009.12045



Summary

- Light-curve hyperparameter constraints from the JLA data show no model dependence nor redshift evolution
- 4-5% of Pantheon-like simulations have similar oscillatory features with that in the Pantheon data (systematics or new physics?)
- Newly developed non-parametric approach for model selection and parameter estimation works well (confronting with Bayesian analysis)