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Gaussian Process Estimation of Transition Redshift

This poster aims to put constraints on the transition redshift z_t , which determines the onset of cosmic acceleration, in cosmological-model independent frameworks. In order to do that, we use the non-parametric Gaussian Process method with H(z) and SNe Ia data. The deceleration parameter reconstruction from H(z) data yields $z_t = 0.59^{+0.12}_{-0.11}$. The reconstruction from SNe Ia data assumes spatial flatness and yields $z_t = 0.683^{+0.11}_{-0.082}$. These results were found with a Gaussian kernel and we show that they are consistent with two other kernel choices.

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