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## **$\Lambda$ CDM vs multidimensional model in describing cosmological acceleration**

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**Abstract.** We consider observational manifestations of accelerated expansion of the Universe, in particular, recent data for type Ia supernovae, baryon acoustic oscillations and for the Hubble parameter  $H(z)$  depending on redshift. We compare two models describing the mentioned observations: the  $\Lambda$ CDM model and the multidimensional model of I. Pahwa, D. Choudhury and T.R. Seshadri. For these models we calculate  $\chi^2$  functions for all measured effects, estimate optimal values of model parameters and their permissible errors.

**Keywords:** accelerated expansion, Hubble parameter, baryon acoustic oscillations, extra dimensions

**MSC numbers:** 83E15,83F05

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