Title:	Cosmological Data Fitting
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Abstract:	The main aim of this project is to explore cosmological data contained in the Pantheon SN1a sample, a collection of 1048 supernovae combining various low-z and HST data samples. When constraining the sample to a wCDM cosmological model using chi-square analysis in the form of either hyperparametric grid search sweeping or Nelder-Mead or Downhill simplex method we can estimate the best fit parameters and compare them with the original analysis [7]. Furthermore, the same analysis was performed on the Pantheon+SH0ES data sample, and Principal Component Analysis was performed on both samples in order to reduce the parameter set.
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