Constraining the Geometry of the Universe

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AN INTRODUCTION TO STELLAR COSMOLOGY

Type Ia Supernovae

As we continue to observe the Universe, we forever gain a greater understanding of the way it works. What is important is that we understand our origins. To do this we can employ one of the most cataclysmic events which can be observed, supernova.

$$v = H_0 d$$

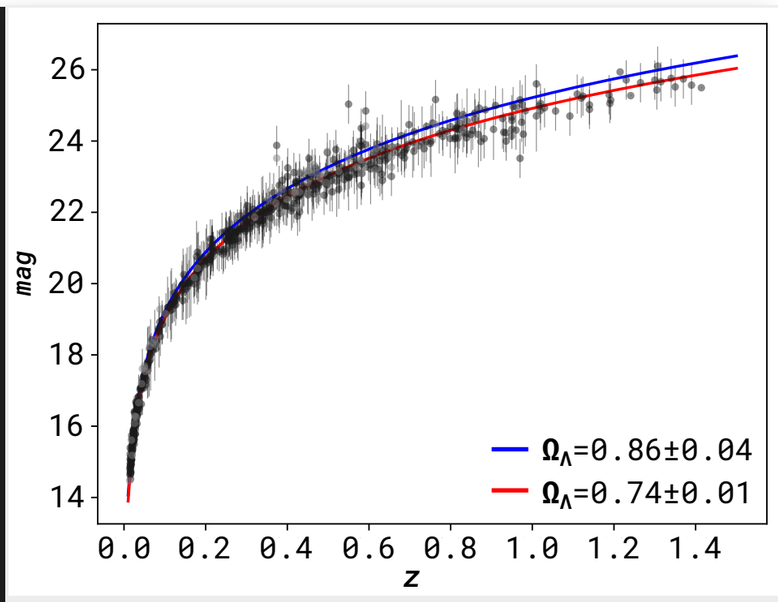

FIG. 1: Hubble's diagram plotted with data from the Supernova Cosmology Project and using data provided for our initial research – uncertainties have been plotted as well. Two models were also fitted, one using Ω_Λ calculated with the initial data (blue), and a second model with the extended data set (red). The given magnitudes (mag) are in the B band and the redshifts (z) are unitless.

AN EXPLORATION OF BAYESIAN STATISTICS

What if we wanted to find the parameters of the universe?

REFERENCES