

U24c **Magnitude red shift relation in the Brans-Dicke theory with a cosmological term**

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Cosmological models with a cosmological term are tightly constrained by the magnitude- red shift relation of type Ia Supernovae (SNIa). This is because, the cosmological term affects significantly to the cosmic expansion rate of the universe at the low red shifts. Even though the Friedman model has succeeded to explain some theoretical points of Cosmology with the observations, it is not perfect to explain the current SNIa observations.

Therefore here we investigate Brans-Dicke theory with a cosmological term using SNIa observations as another theoretical approach. Though the various cosmological parameters have been calculated by the BBN and WMAP observations, here we obtain the cosmological parameters in Brans-Dicke model using SNIa observations.

We investigate the matter and cosmological density parameters for non zero and zero curvature cases with varying and constant cosmological terms for several parameter sets. Furthermore we investigate a model to find the best fit parameter range to explain SNIa observations. Then we can investigate the Big-Bang nucleosynthesis error.