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Comparing models with new data sets CRAIG NAKUTIS, university of dallas — Cosmology seeks to find an understanding for the dynamical accelerated expansion of the universe. In order to help understand the universe a proper model must be found that matches the current observable data. For this report, the models tested were  $\omega$ CDM, CPL parameterization, Modified Polytropic Cardassian, and Slow roll dark energy. These models were tested using cosmoMC with data from the latest cosmic microwave background measurement of the Planck satellite, baryon acoustic oscillations, supernovae type Ia, Hubble Parameter H(z) measurements, and redshift space distortions that could be found. The results will be compared to the accepted  $\Lambda$ CDM to check for a better fit to the observed data.

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