

The *Umami* Chaplygin model

In this work we study in detail a phenomenological generalization of the Chaplygin cosmological model, which we call as *umami* Chaplygin model. We consider three different cosmological background scenarios in which our fluid can play three different roles: only as a dark energy component; as a dark matter and dark energy component; and as a dark plus baryonic matter and dark energy component. With such analysis we explore the possibility to unify the dark fluids under one single component within the context of General Relativity. We test this hypothesis against the main available data related to the cosmological background, namely: Type Ia supernovae; Baryon Acoustic Oscillations; Quasars; Gamma Ray Bursts; Hubble data from cosmic chronometers; and Cosmic Microwave Background. We eventually compare the statistical efficiency and reliability of our model to describe observational data with respect to the standard Λ CDM model by means of the Bayesian Evidence. Final results point to a positive (albeit not strong) evidence in favor of a possible unification of dark energy and dark matter with the *umami* fluid.