Sixteenth Marcel Grossmann Meeting



Contribution ID: 705

Type: Invited talk in the parallel session

Evidence for Emergent Dark Energy

Tuesday, 6 July 2021 09:50 (20 minutes)

We discuss a generalised form of an emergent dark energy model with one degree of freedom for the dark energy sector that has the flexibility to include both Λ CDM model as well as the Phenomenologically Emergent Dark Energy (PEDE) model proposed by Li & Shafieloo (2019) as two of its special limits. The free parameter for the dark energy sector, namely Δ , has the value of 0 for the case of the Λ and 1 for the case of PEDE. We confront the model with various cosmological observations and put constraints on the Δ parameter and show that at the current status of cosmological observations, there is considerable evidence in favor of emergent dark energy with respect to the case of the cosmological constant. I will also briefly discuss how near future observations can make things clear in favor or against this model.

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Session Classification: Dark Energy and the Accelerating Universe

Track Classification: Dark Energy and Large Scale Structure: Dark Energy and the accelerating

universe