Sixteenth Marcel Grossmann Meeting



Contribution ID: 457

Type: Invited talk in the parallel session

Exploring new paths to constrain the expansion history of the Universe with Cosmic Chronometers:

Wednesday, 7 July 2021 11:30 (20 minutes)

In this talk, I will present a novel approach to obtain constraints on the expansion rate of the Universe based on the differential age evolution of "cosmic chronometers". The strength of this method is that it allows a direct measurement of the Hubble parameter H(z) without relying on any cosmological assumptions, providing an ideal framework to test cosmological models.

I will review the latest results obtained, both in terms of H(z) measurements and of treatments of systematics, and I will discuss how this data can be used to constrain cosmological models, how these results compare with the ones obtained with more standard probes, and, finally, also how they can provide some helpful insight in the H_0 controversy.

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Session Classification: Non Standard Cosmological Probes

Track Classification: Fast Transients: Non Standard Cosmological Probes