

# Is new physics hidden in our expansion history? : an Update

*mercredi 1 juin 2022 14:00 (20 minutes)*

Given the current discrepancy between early- and late- time measurements of the Hubble parameter (currently at around the 5sigma level) new models deviating from LambdaCDM have been proposed in the literature to address this so-called Hubble tension. Among the plethora of models out there, we focus particularly in the case of New Early Dark Energy (NEDE) (M Sloth and F. Niedermann) which consists of the inclusion of a new energy component which decays slightly before the time of recombination and so reduces the tension. A two-eld model first-order phase transition is proposed that explains how the distribution of energy changes around that time and reduces the sound horizon; thus increasing the Hubble parameter. e model has been able to reduce the tension to 2.5 sigma when using some of the available cosmological likelihoods. In this work in progress, we perform ts and an MCMC analysis of the first version of NEDE (2020), using the most recent datasets combining and updating not only the previous datasets: BAO, SN, Planck 2018 and SH0ES but also including SPT and ACT data.

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**Classification de Session:** Parallel session 2