Sixteenth Marcel Grossmann Meeting



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Extra components solutions to the Hubble tension with BBN

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The standard Lambda CDM cosmological model now seems to face some puzzles. One of the most serious problems is the so-called Hubble tension; the values of the Hubble constant obtained by local measurements look inconsistent with that inferred from CMB. Although introducing extra energy components such as the extra radiation or early dark energy appears to be promising, such extra components could alter abundance of light elements synthesized by Big Bang Nucleosynthesis (BBN). We perform Monte Carlo simulation to evaluate the effect of those extra component scenarios for solving the Hubble tension to the BBN prediction.

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Session Classification: Status of the H_0 and Sigma_8 Tensions: Theoretical Models and Model-

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