

Strong backreaction of gauge quanta produced during inflation and the sourced GWs

Sunday, 19 October 2025 15:40 (20)

In this report, I will introduce our recent studies about the axion-gauge system during inflation, mainly focusing on the strong backreaction region. With a linear axion potential, we found that a steeper slope can enhance the gauge quanta production, while a larger coupling cannot increase it. We then apply this result to a realistic model with cosine axion potential, finding the quantum fluctuation can limit the max GW spectrum.

Presenter(s) : HE, Jian-Feng (ITP, CAS)

Session Classification : Parallel-1