

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

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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: HE, Jian-Feng

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