

## Gravitation dark matter production

*Thursday 17 April 2025 09:30 (30 minutes)*

In this talk, I address the gravitational production of dark matter in two distinct scenarios: first, when reheating is driven by gravitational particle production, and second, when reheating is dominated by the decay of the inflaton field.

I establish a relationship between the reheating temperature and the mass of dark matter, and by leveraging the constraints on reheating,

I demonstrate how to determine the range of viable dark matter mass values. This analysis provides a framework for understanding the interplay between reheating dynamics and the properties of dark matter in the early universe

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