

# Cosmological collider signatures of massive gauge bosons

*Tuesday 7 June 2022 17:00 (15 minutes)*

The inflationary universe could be an interesting testbed of beyond the Standard Model theories at energies far above the reach of terrestrial colliders. In this talk, I will discuss the production of massive  $U(1)$  gauge bosons during inflation and show that it leaves characteristic signatures in CMB spectrum and creates gravitational waves detectable at LIGO/LISA interferometers. I will also talk about the prospect of detecting nongaussianity and parity violation in these signals.

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