## Workshop on Very Light Dark Matter 2021



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## Squeezed quantum states of axions

Monday, 27 September 2021 14:00 (40 minutes)

In this talk, I will discuss the production of axions from the vacuum caused by the expansion of the Universe. I will show the axions evolve as a squeezed state during inflation and become a highly entangled state. Such a quantum squeezed state of axions remains after horizon re-entry. I also discuss the observability of the quantum coherence of axions.

Presenter: KANNO, Sugumi

Session Classification: Monday PM

Track Classification: Invited