



Contribution ID: 31

Type: **Gong show talk (5 mins)**

## Atom interferometry for fundamental physics

*Thursday, December 15, 2022 2:40 PM (10 minutes)*

Atom interferometry is an exciting new technology employing quantum sensors to make precision measurements in key tests of fundamental physics. Upcoming terrestrial long-baseline experiments such as AION and MAGIS will access new parameter spaces in searches for dark matter and gravitational waves, including sensitivity to the mid-band frequency range between LIGO and LISA. The talk will give a very brief overview of the physical principles behind atom interferometry and how it can be used to probe ultra-light dark matter.

### Type of presentation

5 minute talk

### Would you be interested in receiving feedback on your presentation?

Yes

### Are you happy for your talk to be recorded?

Yes

### Other categories:

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Phenomenology

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