## **Copernicus Webinar and Colloquium Series**



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## Can we detect gravitons or HFGWs?

Tuesday 4 July 2023 10:00 (1h 20m)

Detecting gravitons is a big challenge. In this talk, we discuss possible experiments for the graviton detection. We consider macroscopic quantum phenomena and its relation to gravity. First of all, we will discuss quantum noise of gravitons in a detector. Then, we will explain how the decoherence due to noise of gravitons can be used for the graviton search. We also argue that high frequency gravitational wave detection is also related to the graviton search. Then, we propose a magnon detector for probing HFGWs.

Presenter: SODA, Jiro (Kobe University & KEK)