

## Searching for axions in pulsar magnetospheres

*Friday, 29 July 2022 12:00 (30 minutes)*

I will discuss various ways in which we can try to probe axion physics using the magnetospheres of neutron stars. I will focus in particular on two distinct possibilities: (i) the identification of radio lines coming from the resonant conversion of axion dark matter, and (ii) the possibility of sourcing axions directly from the plasma dynamics in the polar caps of neutron stars. I will show that both of these processes give rise to strong observational signatures that can probe novel axion parameter space.

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**Session Classification:** Invited highlights

**Track Classification:** invited highlight