



Contribution ID: 22

Type: **Plenary talk**

## **Axion dark matter (theory & experiment)**

*Wednesday, 30 August 2023 11:00 (30 minutes)*

We review the motivation for the axion as a solution of the strong CP puzzle and as a candidate for cold dark matter. Then we discuss benchmark axion models and present their predictions concerning (i) axion dark matter abundance and (2) axion couplings to the Standard Model. Finally, we give an overview on the discovery potential of current and planned axion experiments, reaching from axion dark matter direct detection, over searches for solar axions, to direct production and detection of axions in the laboratory.

### **Submitted on behalf of a Collaboration?**

**Presenter:** RINGWALD, Andreas (DESY)

**Session Classification:** Plenary session

**Track Classification:** Dark matter and its detection