

SPEAKER: Robert Ziegler

TITLE: **Flavor Phenomenology of the QCD Axion**

DATE: 26 May 2021, 15:00

PLACE:

ABSTRACT

I will discuss the possibility to search for the QCD axion with high-precision flavor facilities, complementary to the usual axion searches with helio- and haloscopes. After a short introduction to the strong CP problem and the QCD axion, I will summarize the bounds on the most general flavor-violating axion couplings. These constraints arise mainly from 2-body meson and lepton decays with missing energy, and could be substantially improved by dedicated searches at e.g. Belle-II. I will also discuss novel constraints on Hyperon decays with missing energy from SN1987A, which can provide the strongest limits on flavored dark sectors. Zoom link: <https://unipd.zoom.us/j/81195975077>