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Recent dark-sector and tau physics results at Belle II

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Belle has unique reach for a broad class of models that postulate the existence of dark matter particles with MeV —GeV masses. In addition, the low-background environment of electron-positron collisions and an hermetic detector make Belle II the premier experiment for studying tau-lepton physics. This talk presents recent world-leading results from Belle II searches for dark Z' decays and long-lived (pseudo) scalars in B decays. In addition, the world's most precise determination of the tau lepton mass and searches for tau decays into a scalar non-SM particle and a lepton are reported.

Primary author: LONGO, Savino (University of Manitoba)Presenter: LONGO, Savino (University of Manitoba)Session Classification: Dark Matter

Track Classification: Beyond the Standard Model