

Sensitivity study of τ decays with an η meson at the Belle II experiment.

Abstract

In this work the sensitivity study of the decay channels $\tau \rightarrow \eta\pi\nu$ and $\tau \rightarrow \eta\pi\pi^0\nu$ at the Belle II experiment are presented. Measurements of the branching ratio and $\eta\pi$ invariant mass for each channel would disentangle models. Furthermore, the decay $\tau \rightarrow \eta\pi\nu$ is relevant because its observation could be a signal of Second Class Currents and, due to the suppression, is sensitive to contributions from new physics.

Primary author(s) : Mr. HERNÁNDEZ VILLANUEVA, Michel (CINVESTAV)

Co-author(s) : Dr. LÓPEZ CASTRO, Gabriel (Cinvestav); Prof. DE LA CRUZ BURELO, Eduard (CINVESTAV-IPN Mexico)

Presenter(s) : Mr. HERNÁNDEZ VILLANUEVA, Michel (CINVESTAV)