



Contribution ID: 51

Type: **Poster contribution**

Michel electron tagging efficiency in Water Cherenkov Detectors

Monday, August 31, 2026 6:00 PM (2 hours)

Accurate reconstruction of pion production is essential for neutrino oscillation measurements in water Cherenkov detectors, where undetected or poorly reconstructed pions can bias neutrino energy estimation and event interpretation. This poster presents studies of pion-induced signatures in Cherenkov detectors, with a focus on recovering the decay electron from the $\pi \rightarrow \mu \rightarrow e$ decay chain to improve reconstruction efficiency. Improved sensitivity to these secondary particles can enhance particle identification and overall event reconstruction performance.

Primary author: MARTINEZ, Loris (IFAE)

Presenter: MARTINEZ, Loris (IFAE)

Session Classification: Poster

Track Classification: WG6: Detector Physics