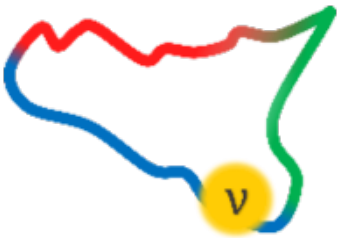

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Analysis Chain of MONUMENT

Monday, 23 June 2025 17:42 (7 minutes)

The MONUMENT experiment investigates ordinary muon capture on isotopes relevant for $0\nu\beta\beta$ decay. Data were collected using two parallel acquisition systems, with this contribution focusing on ALPACA—an in-house developed system with fully offline analysis. The analysis chain comprises energy and time reconstruction, detector calibration, quality cuts, efficiency determination, and time-correlated event reconstruction to extract capture-induced de-excitation signatures. High-purity germanium detectors and photon counters are employed to identify correlated prompt and delayed signals from nuclear de-excitation. Background suppression is achieved through timing cuts and coincidence conditions. This contribution outlines the complete analysis procedure and presents first analysis findings on selected targets.

Primary author: Dr MONDRAGON, Elizabeth (Technical University of Munich)

Presenter: Dr MONDRAGON, Elizabeth (Technical University of Munich)

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