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Poster Session – Submission of Abstract

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Title of the poster: The neutrino event reconstruction in the ICARUS T600 LAr TPC

Abstract:

Liquid Argon TPC imaging technique gives the unique view of the particle interactions, often compared to the old bubble chamber analogue era. Recorded information is so rich in details that special reconstruction algorithms had to be developed and some aspects are still challenge. In these days the progress becomes fast around the world – full size detectors appear and data is coming. Among the competitors, the ICARUS detector is the biggest one, with the ability to capture full contained neutrino events with all their variety and complexity. The poster presents the methods of the event reconstruction, which are applied to data analysis: the hit reconstruction, the two-dimensional event clustering, a three-dimensional track reconstruction approach, and finally stopping particle calorimetric reconstruction and identification.

Summary:

Reconstruction algorithms for the LAr TPC detectors are presented together with their application examples and tests performed on the ICARUS data collected on the CNGS beam.

Keywords:

liquid argon detector, neutrino event reconstruction.