Task 12.5: Particle Flow Reconstruction

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on behalf of the Task 12.5 institutes

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Introduction

- Final report: deliverable D12.4

- Updates for today:
  - Dual Readout Calorimeter: No news
  - APRIL (Algorithm for Particle Reconstruction @ ILC): No news
  - DUNE Near Detector reconstruction

Final report: D12.4

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Reconstruction for the DUNE Near Detector (ND)

- Pandora LArRecoND package v01-01-04

- Pandora ND CAFs (common analysis files) available for DUNE physics analysis
  - Preliminary studies started for “2x2” LArTPC demonstrator July ‘24 data & MC
  - Integration underway for producing Pandora CAFs for full “7x5” ND-LAr MC studies

- Recent DUNE collaboration meeting talks @ CERN:
  - “Pandora for 2x2” & “Pandora for ND-LAr”

- Pandora ND reco improvements planned:
  - Adapt 2D clustering algorithms to 3D
  - Add & use scintillation light information with existing LArTPC charge CaloHits