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**New detection capabilities of liquid argon technology**

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The liquid argon time projection chamber (LArTPC) detector technology provides high resolution event images and excellent calorimetric resolution for particle identification, and it hence has been adopted by the Deep Underground Neutrino Experiment (DUNE) as the far detector technology. Two large prototypes, ProtoDUNE-SP and ProtoDUNE-DP are built at CERN, and located in a test beam, to test the design and robustness of the LArTPC components. In the talk, I will present the latest results from ProtoDUNE-SP, highlighting the excellent performance of the TPC and photon detectors, which is crucial for achieving DUNE's ambitious physics goals.