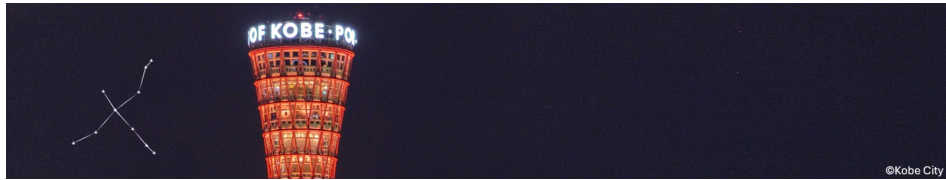


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Q-Pix: a pixelated charge readout for rare-event detection

Wednesday, 25 February 2026 10:05 (25 minutes)

Q-Pix is an innovative approach for measuring directional ionization and, potentially, scintillation signals in a TPC. Originally conceived as a technology for the DUNE far detector, it may be of interest to other rare-event, large-volume tracking experiments, especially those in which low data rates and low power consumption are required. I will present the Q-Pix technical concept as well as preliminary engineering results with the first version of the Q-Pix ASIC chip, and look forward to conversations about potential applications of Q-Pix in the directional recoil sphere.

Presenter: Prof. BATTAT, James (Wellesley College)

Session Classification: Gas detector R&D