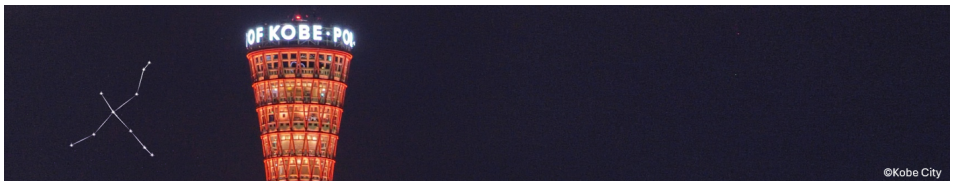

Contribution ID: **36** Type: **not specified**

Search for Migdal effect using Argon-based gaseous μ-TPC

Wednesday, 25 February 2026 11:25 (25 minutes)

Migdal effect refers to a rare process in which atomic ionization or excitation occurs when a nucleus suddenly moves. Since this process can produce an additional electronic signal, it is expected to improve the sensitivity to low-mass WIMPs (Weakly Interacting Massive Particles). However, Migdal effect induced by nuclear recoils has not yet been experimentally confirmed. The MIRACLUE experiment aims to verify this effect using Argon-based gaseous TPC (Time Projection Chamber) with μ-PIC (micro-Pixel Chamber). In this presentation, we report the 7Li(p,n)7Be neutron beam experiment performed in November, 2025.

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Session Classification: Migdal search