

9th edition of the international CYGNUS Workshop on Directional Recoil Detection



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Directional Detection of Boosted Dark Matter

Tuesday, 24 February 2026 14:00 (25 minutes)

Strong constraints from direct detection experiments have motivated growing interest in sub-GeV dark matter. Although such light dark matter cannot be detected in ordinary direct detection experiments, it becomes detectable if it is boosted by an external mechanism, making directional information especially valuable. In many scenarios, boosted dark matter shows characteristic arrival directions from the Galactic Center. In this seminar, I will discuss directional detection in two cases: dark matter boosted by cosmic rays and light boosted dark matter produced through annihilation of a heavier component in a two-component dark matter model.

Presenter: NAGAO, Keiko (Okayama University of Scienence)

Session Classification: Application