The 3rd KMI School：Machine Learning in Particle and Astrophysics

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Breakout room #3: Development of high speed readout machine for directional dark matter search experiment NEWSdm

Tuesday 17 Nov 2020 at 14:20 (01h30')

Content :

The NEWSdm is a directional dark matter search experiment. In this experiment, we aim to detect the recoiled nuclei tracks induced by dark matter by using Nano Imaging Tracker (NIT), a solid track detector, and detect the direction of the tracks. NIT has high spatial resolution and can record sub-μm track information created by recoiled nuclei by dark matter. Currently, in order to conduct experiments on the 10 kg ⊠ year scale, analysis machines is being developed. these make it possible to do automatic and high speed read out sub-μm track information stored in the NIT. In this presentation, I am going to talk about the development status and future prospects of the analysis machine.

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