Contribution ID: **118** Type: **Parallel session talk**

Results from the MIGDAL experiment's commissioning using fast neutrons from a D-D generator

Thursday 24 August 2023 08:45 (15 minutes)

The Migdal in Galactic Dark mAtter expLoration (MIGDAL) experiment aims to make the first direct and unambiguous observation of the Migdal effect from fast neutron scattering using intense DT and DD generators, allowing the effect to be investigated over a wide range of nuclear recoil energies.

The experiment uses an Optical Time Projection Chamber equipped with a stack of two glass-GEMs operating in 50-Torr CF4 based gas mixture, with light and change readout provided by a CMOS camera, a photomultiplier tube, and a 120 Indium-Tin-Oxide strip anode allowing precise three-dimensional reconstruction of the ionisation tracks from electron and nuclear recoils.

We will present preliminary results from the experiment's commissioning using fast neutrons from the D-D generator at the Rutherford Appleton Laboratory's Neutron Irradiation Laboratory for Electronics (NILE).

Collaboration / Activity

MIGDAL

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