



Contribution ID: 233

Type: **Poster presentation**

Testing spin-dependent dark matter with lithium targets in CRESST-III

Tuesday 19 July 2022 19:00 (1 hour)

Dark matter (DM) accounts for 85% of the matter in our universe, however, its nature is still one of the biggest open questions in modern physics. While measurements have imposed strong limits on the spin-independent scattering of DM in direct detection experiments, the parameter space of spin-dependent scattering still leaves room for exploration. CRESST-III operated in their latest run for the first time lithium aluminate crystals as cryogenic, scintillating calorimeters, optimized for DM searches, in the low background environment of the Laboratori Nazionali del Gran Sasso (LNGS). In previous above ground measurements with lithium targets, promising constraints on the cross section of spin-dependent DM interactions could already be set. In my presentation I discuss the obtained results with lithium targets, the details on the analysis chain and future perspectives.

Author: WAGNER, Felix (HEPHY Vienna)**Presenter:** WAGNER, Felix (HEPHY Vienna)**Session Classification:** Poster session