

Author: *Jan Kunzmann*

Constitution: *University of Bern*

Titel: *SoLAr: A future LAr TPC to detect MeV-scale neutrinos*

Abstract:

*SoLAr is a proposed liquid argon time projection chamber (LAr TPC) experiment that will be able to measure the “hep branch” of solar neutrinos, which are in the MeV region. SoLAr uses millimeter-scale spatial resolution with combined charge and light matching. The scintillation light and the deposited charge signals are collected on the same readout plane that contains a combined grid of silicon photon multipliers and charge collection pixels. A first prototype was successfully operated in Bern in cosmic-rays in October 2022 for the first time. The conceptual design of SoLAr, the advantages, and the first results of the SoLAr prototype will be discussed in details in this talk.*