



Contribution ID: 63

Type: oral

Experimental studies towards the development of an ultra-compact electromagnetic calorimeter composed of oriented crystals

Monday, 5 June 2023 12:20 (20 minutes)

In the last few years, the STORM collaboration has studied the Strong Field regime in a variety of crystals of interest for the development of innovative electromagnetic calorimeters (such as $0.5 - 4.6 \text{ X0 PbWO}_4$). In all the tested samples, a large reduction of the effective radiation length has been observed. This contribution will describe the results, obtained by the STORM collaboration, which led to the new INFN project OREO (ORiEnted calorimeter), dedicated to the construction and test of the first calorimeter composed of oriented crystals.

Primary authors: MONTI-GUARNIERI, Pietro; SELMI, Alessia; LOBKO, Alexander; SYTOV, Alexei; MAZZOLARI, Andrea; DE SALVADOR, Davide; VALLAZZA, Erik Silvio; RONCHETTI, Federico; Dr SGARBOSSA, Francesco; LEZZANI, Giulia; BANDIERA, LAURA; PERNA, Leonardo; BOMBEN, Luca (Istituto Nazionale di Fisica Nucleare); MOULSON, Matthew David; SOLDANI, Mattia; PREST, Michela; KORJIK, Mikhail; Dr CARSI, Stefano; MASCAGNA, Valerio; TIKHOMIROV, Victor; HAURYLAVETS, Viktor; GUIDI, Vincenzo; ROMAGNONI, Marco

Presenters: MONTI-GUARNIERI, Pietro; MOULSON, Matthew David

Session Classification: S2: Radiation: Generation & Interaction