

Titolo Tema/Progetto	Pulse shape discrimination with the germanium detectors of the LEGEND-200 experiment
Esperimento CSN2/Sigla del Proponente	GERDA/LEGEND
Struttura INFN del proponente	Padova
Laboratorio ospitante (Italia: LNGS, LNF, LNS,LNL, EGO, SOS-ENATTOS, TIFPA-FBK; Estero: CERN, La Palma, Malargue (AUGER), Salta (QUBIC))	LNGS
Persona di riferimento presso il laboratorio	Natalia Di Marco
Data di inizio (01/11/2024-01/04/2025, durata >= 3 mesi)	10-Jan-25
Data di fine (>= 3 mesi)	10-May-25
Descrizione attività (max 1000 caratteri)	<p>LEGEND-200 is a new experiment at the Laboratori Nazionali del Gran Sasso (LNGS) dedicated to the search for the neutrinoless double-beta decay using the Ge76 isotope.</p> <p>The experiment is presently taking data.</p> <p>The experiment uses pulse shape discrimination (PSD) tools to reject the background events.</p> <p>A deep understanding of this instrument is of fundamental importance for the experiment.</p> <p>Therefore a large part of the project will be dedicated to comparing the performances of the PSD in real data versus its performances in simulated data.</p> <p>As a first step of the proposed project, the student will take a look at the PSD simulation programs. Subsequently, the student will analyze the data from Th calibration runs by comparing the results obtained with the simulation predictions.</p> <p>The results of this comparison should provide important information to improve the simulation.</p>
Altre indicazioni (al massimo 500 caratteri)	0
Servizi offerti dal laboratorio ospitante	Mensa
Note	0