

PhD School in Experimental Physics



Matteo Feltre

Birthplace: Vicenza, Italy Languages: Italian, English Some info about myself: I like playing D&D, football, chess and hiking

Education

I obtained my Bachelor's Degree in 2019 and my Master's Degree in 2021 in Physics at University of Padova, focusing on Neutrino Physics.

PhD Info Day, December 19th, 2023

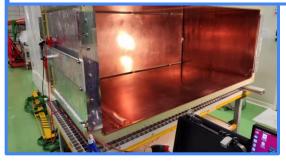


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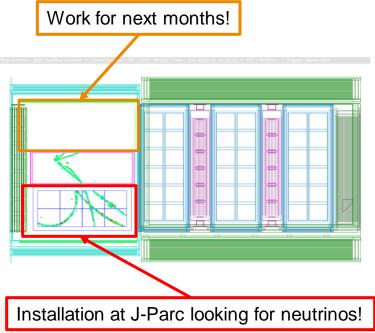
PhD Project Information

My work is focused on the production and characterization of the Field Cages for the new Time Projection Chambers of T2K Experiment

Field Cage + Cathode assembly and test



Resistive MicroMegas installation



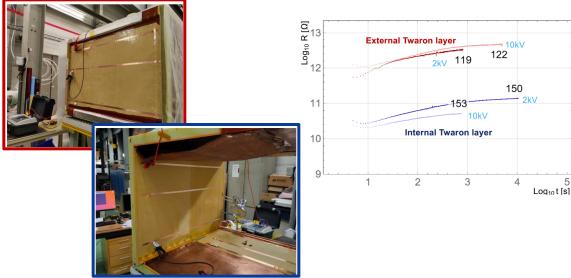
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Previous design had an issue, so a lot of effort was put into testing each component...

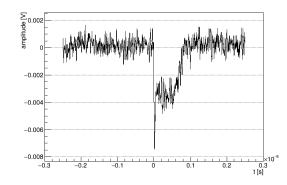


 7 mm
 128 μm gap bulk-micromegas with SD45/18 woven stainless steel mesh @ GND

 ✓ 1 mm
 <1 μm DLC</td>
 0.4 MΩ/□
 resistive layer on 50 μm APICAL

 75 μm glue
 4 mm
 34x42 cm² PCB with 32x36 pads (10,09 x 11,18 mm²)
 2.21 mm

 ✓ DLC HV @ ~ 400 V
 Mechanical stiffener



Meanwhile we want to investigate the contribution of ions to MicroMegas signals

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