Contribution ID: **19** Type: **not specified**

Designing and testing the new Power System for the ATLAS Muon Spectrometer at the High-Luminosity LHC

The development of a new Power System for the ATLAS Muon Spectrometer is a key priority to meet the challenges of the High-Luminosity LHC, which will start in 2030.
The Pavia team defined it and now is testing the first prototypes, while its design is done by the CAEN company. Since most of the modules will be placed in hostile environments, they must sustain high radiation levels and work in a magnetic field up to 0.1T.
To carry out the tests, specific CERN facilities have been used. CHARM for radiation hardness, offering an irradiation room of mixed field particles with conditions similar to the ATLAS cavern. A dipole that can reach up to 1T for B-field tests to measure the functionality and efficiency of the modules as a function of the B-field intensity and orientation.
An overview of the tests is presented, alongside with the main results that were obtained.

Primary authors: LANZA, Agostino (INFN Pavia); KOURKOUMELI-CHARALAMPIDI, Athina (INFN Pavia); CALABRÒ, Domenico (INFN Pavia); ROMANO, Emanuele (Centro Grandi Strumenti and INFN Pavia); CRESTA, TOMMASO

Presenter: CRESTA, TOMMASO

Session Classification: Caffè e poster (dal N. 9 al N. 51)