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Recent Results and Future Plans of the MoEDAL Experiment

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MoEDAL is an LHC experiment designed to search for anomalously ionizing messengers of new physics such as magnetic monopoles or massive (pseudo-)stable charged particles, which are predicted to exist in many models beyond the Standard Model. It started data taking at the LHC at a centre-of-mass energy of 13 TeV in 2015. Its physics program yields insights into such foundational questions as: are there extra dimensions or new symmetries; what is the mechanism for the generation of mass; does magnetic charge exist; and what is the nature of dark matter. We will present the results from the MoEDAL detector on magnetic monopole and highly ionizing electrically charged particle production. In conclusion, progress on the installation of MoEDAL's MAPP (MoEDAL Apparatus for the detection of Penetrating Particles) sub-detector prototype will be briefly be discussed.

Author: STAELENS, Michael

Co-author: RAJANTIE, Arttu (Imperial College (GB))

Presenter: STAELENS, Michael

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