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## The X17 search with the MEG-II apparatus

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The MEG-II experiment, at the Paul Scherrer Institute in Switzerland, is searching for the charged lepton flavour violating (CLFV)  $\mu^+ \rightarrow e^+\gamma$  decay. After its second year of data taking only, it can reach the world's best sensitivity on the branching ratio of the decay, below  $10^{-13}$ . Beyond its primary objective, MEG-II's adaptability enables it to probe the recent Atomki anomalies. These kinematically consistent excesses observed in the angular correlation spectra of electron-positron pairs emitted by  $^8\text{Be}$ ,  $^4\text{He}$  and  $^{12}\text{C}$  excited nuclei could be interpreted by the decay of a circa 17 MeV/c<sup>2</sup> neutral boson, X(17). Employing a Cockroft-Walton accelerator, a 2  $\mu\text{m}$ -thin lithium target and advanced detectors, MEG-II aims to independently study the  $^7\text{Li}(p,e^+e^-)^8\text{Be}$  reaction. The charged particles are tracked through a magnetic spectrometer equipped with a new-generation drift chamber and arrays of fast scintillators. At the same time, the associated photons are absorbed within a xenon calorimeter. With an improved resolution and extended acceptance with respect to the original Atomki experiment, MEG-II can provide further insights into the anomaly and its interpretation. A month-long data taking was conducted in 2023. We report on the data acquisition, analysis status and related prospects.

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