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【344】Measurement of the X17 anomaly with the MEG II detector

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In 2016 the ATOMKI collaboration measured an anomaly in the angular distribution of the pair produced by the M1 transition of the isoscalar 1+ state on 8Be, which might be explained by creation and decay of a boson, the X17, with mass 17.0 MeV/c2. The result was later confirmed in the 0-/0+ transition in Helium.

The apparatus of the MEG II experiment has been employed at the beginning of 2023 to measure such anomaly with a LiPON target and a different detection technique based on the COBRA spectrometer and the Cylindrical Drift Chamber.

We present the details of the set-up and the current status of the analysis.

Theoretical Work

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