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# Hunt for Hidden Photons in the LZ Experiment

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Motivated by possible theoretical extensions to the standard model, hidden photons (HP) are a suitable candidate for cold dark matter. Their possible masses cover a broad region, from 10-12 to 106 eV [1]. Large scale direct detection experiments such as LUX-ZEPLIN (LZ), built primarily to detect WIMPs, could also be sensitive to HP dark matter via the so called hidden photoelectric effect in the keV-MeV mass scale . This work presents the study of the HP sensitivity reach of the LZ experiment in the 10-40 keV mass range.

Reference :
[1] P.Arias, et al., JCAP06 (2012) 013, “WISPy cold dark matter”

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