

Searching for Hidden Photons

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A “hidden photon” is a possible new particle, similar to the photon but with a small mass and with only a tiny coupling to electrically charged particles. Searches for hidden photons – whether as dark matter or as a new force carrier – have a great deal of overlap with corresponding axion searches. However, they tend to be significantly easier for two reasons: 1) static B-fields are NOT required, and 2) the astrophysical constraints are much weaker, making the allowed part of parameter space easier to reach. I will briefly review the landscape of hidden-photon theory and searches.

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