Searches for beyond-the-Standard Model physics with light nuclei
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Low-energy precision experiments can indirectly probe high energy scales and are complementary to collider searches for beyond-the-Standard Model (BSM) physics. Low-energy experiments, however, often involve complicated nuclei which muddles the interpretation of the data. On the other hand, light nuclei are simple enough to be described with firm theoretical tools such as (chiral) effective field theory. Precision experiments involving light nuclei are therefore both theoretically and experimentally interesting. I discuss various (proposed) precision tests involving light nuclei focusing on electric dipole moments and dark matter direct detection. I focus on what these experiments can teach us about BSM physics and about experiments involving more complicated nuclei.