

Time-varying electric dipole moments, spin-precession effects and variations of fundamental constants induced by ultralight axion and scalar dark matter

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Axion or axionlike dark matter can couple to gluons and fermions, leading to time-varying electric dipole moments and spin-precession effects. Additionally, ultralight axion or scalar dark matter can induce variations of the fundamental constants of nature, such as the particle masses and strengths of fundamental interactions. I discuss the mechanisms involved in generating these effects and associated phenomenological consequences.

References:

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