Thin windows for stringy axion dark energy

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Abstract

Recent hints of time-dependent dark energy have revived interest in axions as quintessence candidates. I will discuss dynamical viability conditions for axion dark energy and argue that, when combined with quantum-gravity expectations, these point to tensions with cosmological fits. The discrepancy involves not only sub-Planckian decay constants, but also super-Hubble axion masses, thereby sharpening the associated fine-tuning of initial conditions. The result is a thin but informative window for string-theoretic axion quintessence.

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