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Thraxions

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We argue that a new type of ultra light axion is generically present in the type IIB part of the string theory landscape. It arises when fluxes stabilize Calabi-Yau manifolds near a conifold transition locus in moduli space. After accounting for ten-dimensional backreaction the scalar potential features a finite axion monodromy with overall scale far smaller than the weak gravity conjecture for axions would predict. Moreover we identify a mechanism for generating super-Planckian axionic field ranges which we call drifting monodromies. However, in the examples we consider, the potential oscillates on sub-Planckian distances in field space, preventing us from building a natural inflation model on the basis of this idea.

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