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## Saving Warm Axion Inflation from Light Fermions

*Wednesday 7 February 2024 11:40 (45 minutes)*

Axion-like particles with a coupling to non-Abelian gauge fields at finite temperature can experience dissipation due to sphaleron heating. This could play an important role for warm inflation or dynamical dark energy. We investigate to what degree the efficiency of this non-perturbative effect depends on the details of the underlying particle physics model. For a wide range of scenarios and energy scales, we find that a previously discussed suppression of sphaleron heating by light fermions can be alleviated. As an outlook, we point out that fermionic effects may provide a new mechanism for ending warm axion inflation.

Based on:

M. Drewes and S. Zell, On Sphaleron Heating in the Presence of Fermions, arXiv:2312.13739

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