

# Topological Susceptibility to High Temperatures via Reweighting

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At high temperatures, the topological susceptibility of QCD becomes relevant for the properties of axion dark matter. However, the strong suppression of non-zero topological sectors causes ordinary sampling techniques to fail, since fluctuations of the topological charge can only be measured reliably if enough tunneling events between sectors occur. We present a new method to circumvent this problem based on a combination of gradient flow and reweighting techniques. Moreover, we quote continuum extrapolated results for the topological susceptibility in the quenched approximation at  $2.5 T_c$  and  $4.1 T_c$ .

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