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# Axion cosmology from lattice QCD

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The strong CP problem of QCD can be solved via the Peccei-Quinn mechanism. The resulting pseudo-Goldstone bosons, the axions are natural candidates for dark matter. In order to quantitatively understand axion dark matter production two important QCD inputs are required: the equation of state and the topological susceptibility at high temperatures. We determine these quantities and use them to determine the axion mass in different axion production scenarios.

## Summary

We determine the equation of state and the topological susceptibility
at high temperatures using lattice QCD and apply them to determine the axion mass in different axion dark matter scenarios.

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