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# Three-zero texture of quark-mass matrices as a solution to the strong CP problem

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The strong charge-parity (CP) problem has been a long-standing problem in particle physics since 1976, illustrating the small CP-violation phase in quantum chromodynamics (QCD). The axion, based on the Peccei-Quinn mechanism, is the most popular solution to the problem. In this paper, we propose an alternative solution based on the three-zero texture of quark mass matrices without additional heavy quark states, which has been shown to fit data well. We show that the required three-zero texture is naturally constructed in a six-dimensional spacetime with a T2/Z3 orbifold compactification.

**Primary author:** LIANG, qiuyue (IPMU)

**Presenter:** LIANG, qiuyue (IPMU)

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