



SEMINARIO

GRUPO FÍSICA DE ALTAS ENERGÍAS

"Solving the strong CP problem without axions"

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Abstract

We formulate general conditions under which the strong CP problem is solved by spontaneous CP violation. Quark mass matrix elements are polynomials in the CP-breaking order parameters, engineered such that their determinant is a real constant. These conditions can be realised in supersymmetric theories with an anomaly-free local flavour symmetry, suggesting a unified solution to the strong CP problem and the flavour puzzle. Our solution can be implemented using either a local $U(1)$ symmetry or modular invariance. We present concrete modular-invariant realisations. Heavy vector-like quarks are in general not required, but their presence allows for models where coloured particles fill non-singlet representations of the finite modular groups.

MIÉRCOLES 10 de Julio de 2024

a las 14:30 hrs. (Chile Continental)

Join Zoom Meeting

<https://reuna.zoom.us/j/87161425888?pwd=MWFZUFNQSnI4MXo1QzFLdGpJblllZz09>

ID de reunión: 871 61425888

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