

## T symmetry invariance tests in neutral meson decays

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The laws of quantum physics can be studied under the mathematical T operation that inverts the direction of time. Strong and electromagnetic forces are known to be invariant under temporal inversion, however the weak force is not. The BaBar experiment recently exploited the quantum-correlated production of neutral B mesons to show that T is a broken symmetry. Here we show that it is possible to perform a wide range of tests of quark flavour changing processes, described by the weak interaction, under the T symmetry in order to validate the Kobayashi-Maskawa mechanism and the Standard Model of particle physics.

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