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Update on the lattice calculation of K->pipi decays with G-parity boundary conditions on a second lattice spacing

Thursday 1 August 2024 09:00 (20 minutes)

We present preliminary results of a second, finer-lattice-spacing calculation of the I=0 K->pi pi decay amplitude in the 3 flavor theory with physical kinematics and G-parity boundary conditions, performed by the RBC & UKQCD collaborations. This new calculation will enable a continuum limit extrapolation, reducing/eliminating the significant finite-lattice spacing systematic error on our previous result. These measurements provide a Standard Model prediction for direct CP violation in kaon decays that is directly comparable to experiment.

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