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Lattice QCD calculation of $K \rightarrow \pi\pi$ decays¹

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Recent lattice QCD calculations of $K \rightarrow \pi\pi$ decays by the RBC/UKQCD collaboration are described, including $\Delta I = 3/2$ transitions at physical kinematics and $\Delta I = 1/2$ transitions at threshold. New techniques for the latter and calculations in-progress at physical quark masses are presented. Prospects for a complete calculation of the $\Delta I = 1/2$ rule and direct CP violation in K decays (ϵ') are discussed.

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²for the RBC/UKQCD Collaboration