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Structure-dependent electromagnetic finite-size effects

In this talk we present a relativistic and model-independent method to analytically derive electromagnetic finite-size effects beyond the point-like approximation. Structure-dependence appears in terms of physical form-factors and derivatives thereof. The values of these physical quantities can be taken either from experimental measurements or auxiliary lattice calculations. We first apply our method to the meson mass, and then to leptonic decays of pions and kaons. Knowledge of the latter allows for improved numerical control in extractions of the CKM-matrix element ratio $|V_{us}/V_{ud}|$ from lattice QCD+QED.

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