The chirally rotated Schrödinger functional at work

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The chirally rotated Schrödinger functional has proven to be a powerful tool in addressing non-perturbative renormalization problems in lattice QCD with Wilson-type fermions. In this contribution we consider two novel applications of the method. Firstly, we investigate the renormalization of a complete basis of $\Delta S=2$ four-quark operators relevant for searches of Beyond the Standard Model physics. Preliminary results are presented for the theory with Nf=2 dynamical flavours. Secondly, we discuss the renormalization of several quark-bilinears in the Nf=2+1 theory.

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