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Non-perturbative improvement of the axial current in N_f=3 lattice QCD

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We present the results of a non-perturbative determination of the improvement coefficient c_A of the axial vector current in three-flavour lattice QCD with O(a) improved Wilson quarks and tree-level Symanzik improved gauge action. Our computation involves an improvement condition which is imposed at a constant physical volume of about 1.2 fm and employs the PCAC relation in the Schrödinger functional scheme with two different pseudoscalar states.

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