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Non-singlet axial current improvement for massless and massive sea quarks

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We present results on the improvement coefficient of the non-singlet axial-vector current, with particular emphasis on imposing improvement conditions in the chiral limit and at the flavour-symmetric point. For its determination, the established Ward-identity method is employed in $N_{\rm f}=3$ QCD with stabilised Wilson-Clover fermions.

We simulate with Schrödinger functional boundary conditions and box-sizes of about $3 \, \mathrm{fm}$ for $a \in [0.120, 0.055] \, \mathrm{fm}$. Furthermore, we report on our plans to extend such calculations to access other improvement coefficients and renormalisation factors.

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