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The SU(N) running coupling in the twisted gradient flow scheme and volume independence.

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We report on an ongoing study of the running coupling of SU(N) pure Yang-Mills theory in the twisted gradient flow scheme (TGF). The study exploits the idea that twisted boundary conditions reduce finite volume effects, leading to an effective size in the twisted plane that combines the number of colours and the torus period. We test this hypothesis by computing the TGF running coupling and the SU(N) Lambda parameter on asymmetric lattices of size $(NL)^2 \times L^2$ for various gauge groups. Finite volume effects are monitored by analyzing the coupling in different planes and by comparing results at different number of colours.

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