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# The Static force with gradient flow from the lattice

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We measured the static force directly in the continuum limit on the lattice in quenched theory for the first time. A generalized Wilson loop with a chromoelectric field insertion in one of the temporal Wilson lines is the operator that measures the static force directly. However, chromoelectric field insertions converge slowly to the continuum and require an improvement. We use gradient flow to improve the field insertion, to perform the continuum limit at finite flow time followed by a zero-flow-time limit, and to extract $\sqrt{t_0}/r_0$ and $\Lambda_0$. This study serves as a preparation for similar objects with chromo field insertions needed in NREFTs at zero and finite temperatures.

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