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## Thermodynamics and reference scale of SU(3) gauge theory from gradient flow on fine lattices

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We study thermodynamics of SU(3) gauge theory on the basis of the Yang-Mills gradient flow on fine lattices. For this purpose, the lattice spacing of the Wilson gauge action is determined over a wide range of  $\beta$  with high accuracy. We then measure the flow time and lattice spacing dependences of the expectation values of the energy-momentum tensor. The extrapolation to the continuum limit of these results is performed.

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