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(2+1)-flavor QCD Thermodynamics from the Gradient Flow

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Recently, we proposed a novel method to define and calculate the energy-momentum tensor (EMT) in lattice gauge theory on the basis of the Yang-Mills gradient flow.
In this talk, we show the bulk thermodynamic quantities in lattice gauge theory using this method for (2+1)-flavor QCD.
The entropy density of (2+1)-flavor QCD at fixed temperature are calculated.
We also show the flow time dependence of the EMT including the dynamical fermion contributions.
This work is based on a joint-collaboration between FlowQCD and WHOT QCD.

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