

# Partial deconfinement for some bosonic matrix models

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We provide evidence for partial deconfinement by using lattice Monte Carlo simulations of some bosonic matrix models.

Partial deconfinement is the phenomenon that coexists the confined and deconfined phases in the system, in particular of several large- $N$  gauge theories, at finite temperature.

By appropriately fixing the gauge, we observe that only submatrices deconfine in the analysis of the gauged-Gaussian matrix model and the Yang-Mills matrix model.

We also discuss the applications to QCD.

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