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Title:	Thermal phase structure of dimensionally reduced super-Yang--Mills
Authors:	Joseph, Anosh (/jspui/browse?type=author&value=Joseph%2C+Anosh)
Keywords:	Thermal phase Dimensionally
Issue Date:	2022
Citation:	Proceedings of Science, 396, 187.
Abstract:	We present our current results from ongoing lattice investigations of the Berenstein--Maldacena--Nastase deformation of maximally supersymmetric Yang--Mills quantum mechanics. We focus on the thermal phase structure of this theory, which depends on both the temperature $T$ and the deformation parameter $\mu$ , through the dimensionless ratios $T/\mu$ and $g=\lambda/\mu^3$ with $\lambda$ the 't-Hooft coupling. We determine the critical $T/\mu$ of the confinement transition for couplings $g$ that span three orders of magnitude, to connect weak-coupling perturbative calculations and large- $N$ dual supergravity predictions in the strong-coupling limit. Analyzing multiple lattice sizes up to $N_t=24$ and numbers of colors up to $N=16$ allows initial checks of the large- $N$ continuum limit.
Description:	Only IISER Mohali authors are available in the record.
URI:	<a href="https://doi.org/10.22323/1.396.0187">https://doi.org/10.22323/1.396.0187</a> ( <a href="https://doi.org/10.22323/1.396.0187">https://doi.org/10.22323/1.396.0187</a> ) <a href="http://hdl.handle.net/123456789/4515">http://hdl.handle.net/123456789/4515</a> ( <a href="http://hdl.handle.net/123456789/4515">http://hdl.handle.net/123456789/4515</a> )
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