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Title:	Non-perturbative phase structure of the bosonic BMN matrix model
Authors:	Dhindsa, Navdeep Singh (/jspui/browse?type=author&value=Dhindsa%2C+Navdeep+Singh) Jha, Raghav G. (/jspui/browse?type=author&value=Jha%2C+Raghav+G.) Joseph, Anosh (/jspui/browse?type=author&value=Joseph%2C+Anosh) Samalodia, Abhishek (/jspui/browse?type=author&value=Samalodia%2C+Abhishek) Schaich, David (/jspui/browse?type=author&value=Schaich%2C+David)
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Abstract:	We study the bosonic part of the BMN matrix model for wide ranges of temperatures, values of the deformation parameter, and numbers of colors $16 \leq N \leq 48$. Using lattice computations, we analyze phase transitions in the model, observing a single first-order transition from a uniform to a gapped phase for all values of the deformation parameter. We study the functional form of the dependence of the critical temperature on the deformation parameter, to describe how our results smoothly interpolate between the limits of the bosonic BFSS model and the gauged Gaussian model.
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