

Ergodic $SO(3)$, monopole condensation and vortex free energy

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Abstract: We study the continuum limit of adjoint $SU(2)$ LGT by means of a chemical potential suppressing Z_2 monopoles. Ergodicity problems in the phase separated by the bulk transition from the one continuously connected to fundamental $SU(2)$ are overcome by means of parallel tempering. Monopole condensation measured via the Pisa order parameter is used to establish a deconfinement transition in such phase. The free energy of extended vortices is also measured in all phases, leading to interesting differences with the fundamental representation.