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Grassmann tensor renormalization group for the lattice Gross-Neveu model with finite chemical potential

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In numerical calculation of the lattice QCD, the sign problem of Monte Carlo methods has been a major issue. A numerical renormalization group called tensor renormalization group (TRG) is one of the candidates for the solution of this problem.
Grassmann tensor renormalization group (GTRG) is a generalization of the TRG to fermion systems.
In this study, We apply the GTRG to the lattice Gross-Neveu model in the presence of a chemical potential as a benchmark for future works in finite density systems.

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