

Complex Langevin Simulations of Low-dimensional Supersymmetric Quantum Field Theories

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Using complex Langevin dynamics, we probe the possibility of dynamical breaking of supersymmetry in a class of low-dimensional $N=2$ supersymmetric quantum field theories with complex potentials. We conclude that complex Langevin dynamics can reliably predict the nonperturbative breaking of supersymmetry in cases where Monte Carlo methods are unreliable.

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