

Abstract Submitted
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Scalar theories and symmetry breaking in the light-front coupled-cluster method¹ SOPHIA CHABYSHEVA, University of Minnesota Duluth — The light-front coupled-cluster method is a nonperturbative technique for solving Hamiltonian eigenvalue problems in light-front-quantized field theories. Its primary purpose is to provide a systematic sequence of solvable approximations to the original eigenvalue problem without the truncation of Fock space. Here we apply the method to various two-dimensional scalar theories to illustrate the incorporation of zero modes and symmetry breaking. In particular, we compute nontrivial light-front vacuum structure in such theories.

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