

Abstract Submitted  
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**A harmonic solution for two-dimensional adjoint QCD** UWE TRITTMANN, Otterbein University — Two-dimensional QCD with adjoint fermions has many attractive features, yet its single-particle content remains largely unknown. Using the symmetry structure of the asymptotic theory where pair production is disallowed, a basis of the theory consisting of multi-dimensional harmonic functions is constructed for both the massless and the massive theory. Previously, only part of such a basis was known. It is shown how the basis can be used to furnish an exponentially converging numerical solution of the full theory. Furthermore, the role of pair production is investigated and light is shed onto the vexing problem of distinguishing single- from multi-particle states. Implications for bosonized versions of this theory and applicability of the method to other theories are discussed.

Uwe Trittman  
Otterbein University

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