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The spectrum of open confining strings in the large- N limit

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We compute the spectra of open flux tubes formed between a static quark-antiquark pair for various $SU(N)$ gauge groups in the large- N limit, focusing on different symmetries. Specifically, we present spectra up to $N=6$ and for eight different symmetries of the flux tube. In this study, we employed an anisotropic Wilson action, a large number of suitable operators, and solved the generalized eigenvalue problem to identify a significant number of excitations for different flux tube symmetries. The spectra are compared with the Nambu-Goto string model, revealing novel phenomena such as the presence of massive axions in the flux tube. We find that the mass of the axion in the open flux tube spectra sector is consistent with the mass obtained in the closed flux tube sector.

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