Solution of the Klein-Gordon oscillator in cosmic string space-time for scalar potentials

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Abstract
We study in this work the exact solutions of two-dimensional relativistic particuls of spin-0 in the cosmic string background under the effects of scalar potentials as modification in the momentum operator $p_\mu \rightarrow p_\mu - eA_\mu$ and in the mass term $m \rightarrow m + S(\rho)$. In this way, we solve the Klein-Gordon oscillator (KG) and find the energy levels for bound states. Finally the dependance of the scalar potentials interaction with the angular frequency and the energy spectrum has been discussed.