

Abstract Submitted
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Rayleigh-Ritz approximation for the ground state energy for a particle in a semicircular well LYNCH MORGAN, BIXLER DAVID, Angelo State University — Approximation schemes for bound state energies are of immense importance in quantum mechanics. Typically one finds these desired energies using the “particle in a box” or the simple harmonic oscillator potentials. Methods other than obtaining closed form solutions have been used to determine bound state energies such as time independent perturbation theory, the WKB approximation, and the Rayleigh-Ritz approximation. We shall demonstrate the way one can obtain an approximate ground state energy for a particle in a semicircular potential well using the Rayleigh-Ritz approximation.

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