

This is a review text file submitted electronically to MR.

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**Author:** This line will be completed by the MR staff.

**Short title:** This line will be completed by the MR staff.

**Control number:** 1763927

**Primary classification:** 65D05

**Secondary classification(s):** 34L40

**Review text:**

The title is misleading since the paper just describes the method and results of a polynomial interpolation of the purely numerically generated bound state energies. Schroedinger equation with the potential  $V(x) = Ax^4 + Bx^2$  is considered, with interpolation formulae chosen simply in the current weak- and strong-coupling perturbation-like form. The results concern the ground ( $n = 0$ ) and the first excited ( $n = 1$ ) states. A quarter-of-percent precision is achieved for  $B = 1$  and  $A \in (0, 1)$  or  $A \in (1, 10)$ , and for  $A = 1$  and  $B \in (-10, -4 + n)$  or  $B \in (-4 + n, -n)$  or  $B \in (-n, 10)$ .