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**Review text:**

Bound states in the harmonic-oscillator parabolic well in one dimension form a complete set in Hilbert space and are simply defined in terms of Laguerre polynomials. This makes them useful as a basis, say, in variational calculations. Recently, it has been proposed by Antonsen (cf. ref [7]) that a similar construction and conclusion can be made in the so called Sturmian case where the energy is fixed and the eigencouplings have to be determined.

This paper is a critique of the latter proposal. It argues that the Sturmian eigenproblem is in fact much more complicated since it also has to admit the downwards oriented parabolic potentials. In such a case, the authors construct the two independent solutions of the differential Schroedinger equation and show that both of them remain asymptotically normalizable so that the Sturmianic spectrum contains a continuous part.

Marginally, I have to note that the idea of this paper is in fact not completely unknown in the physics community. For example, it has been communicated to me by J. Dolejší from the Prague's Charles University cca twenty years ago. Still, its very explicit and constructive presentation is useful and carefully performed.