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From the nonrelativistic Morse potential to a unified treatment of a large class of bound-state solutions of a modified D-dimensional Klein-Gordon equation

A large class of bound-state solutions of a modified D-dimensional Klein-Gordon equation, featuring an additional vector interaction nonminimally coupled, is obtained from the nonrelativistic bound-state solutions of the one-dimensional generalized Morse potential via Langer transformation. Some results found in the literature, including the so-called Klein-Gordon oscillator, are obtained as particular cases.

Primary authors: Prof. DE CASTRO, Antonio (UNESP, Universidade Estadual Paulista, Brazil); Prof. CASTRO, Luis (UFMA, Universidade Federal do Maranhão, Brazil); Prof. GARCIA, Marcelo (UNICAMP, Universidade de Campinas, Brazil); Prof. ALBERTO, Pedro (CFisUC, University of Coimbra, Portugal)

Presenter: Prof. DE CASTRO, Antonio (UNESP, Universidade Estadual Paulista, Brazil)

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