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Second order SUSY transformations with ‘complex energies’. (English) Zbl 1008.81027
Phys. Lett., A 308, No. 1, 11-16 (2003).

Summary: Second order supersymmetry transformations which involve a pair of complex conjugate factorization energies and lead to real nonsingular potentials are analyzed. The generation of complex potentials with real spectra is also studied. The theory is applied to the free particle, one-soliton well and one-dimensional harmonic oscillator.

MSC:

81Q60 Supersymmetry and quantum mechanics

Cited in 6 Documents

Keywords:

complex conjugate factorization energies; real nonsingular potentials; complex potentials

Full Text: [DOI](#) [arXiv](#)

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