

SPECIFIC FORMS OF 3×3 PT -SYMMETRIC HAMILTONIAN*

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ABSTRACT

The specific forms of PT -symmetric Hamiltonians in 3×3 quantum system are studied in this paper. Depending on the relationship between non-Hermitian and Hermitian matrices, a special property of the 3×3 Hamiltonian satisfying PT symmetry is proved, and then specific forms of 3×3 non-Hermitian but PT symmetric Hamiltonian are presented.

Keywords: PT symmetry; Hamiltonian; Hermitian matrix.