

Nonlinear Dynamical Symmetries of Some Two-Dimensional Quantum Systems

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Abstract: In this paper nonlinear dynamical symmetries of three quantum systems are studied in detail, such as the Kepler--Coulomb system and the isotropic harmonic oscillator in a two-dimensional curved space, and the generalized pseudo-oscillators in the two-dimensional flat space. Their nonlinear spectrum generating algebras are shown to be relevant to polynomial angular momentum algebras.

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