

Quantum super-integrable systems for arbitrary spin

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Some 30 years ago we with Stroganov had considered the super-integrable system which describes the magnetic dipole with spin $\frac{1}{2}$ (neutron) in the field of rectilinear current. In the present talk I describe its generalization for any spin which preserves super-integrability . The dynamical symmetry stays the same as it is for spin $\frac{1}{2}$.