Coordinate Bethe ansatz computation for low temperature behavior of a triangular lattice of a spin-1 Heisenberg antiferromagnet

ABSTRACT

We study the low temperature behavior of a triangular lattice quantum spin-1 Heisenberg antiferromagnet with single-site anisotropy by using coordinate Bethe ansatz method. We compute the standard two-particle Hermitian Hamiltonian, and obtain the eigenfunctions and eigenvalue of the system. The obtained results show a number of advantages in comparison with many results.