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O(3)-symmetric variational wave functions for the Kondo lattice model JOHAN NILSSON, University of Gothenburg
— We construct and investigate a class of correlated wave functions for the Kondo lattice model. The construction is based on the faithful fermionic representation of the Kondo lattice model that was introduced recently by the author in PRB 83, 235103 (2011). In the limit of small exchange coupling the wave functions allow for both local singlet correlations between the localized moments and the conduction electrons, as well as an essentially arbitrary spin correlation function for the localized moments. We compare and contrast our results with those of previous studies.

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