

Modified equation of motion approach for ferromagnetic systems.

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The key problem in using the Dynamical Mean-Field Theory (DMFT) is finding the appropriate solution to the single impurity Anderson model. We use the modified equation of motion (EOM) method based on differentiation over two time variables. In such approach we obtain correct description of the Kondo effect for systems with symmetry with respect to the half-filled point. Our approach can be used also for the systems without half-filled point symmetry and in the large concentration range like e.g. the ferromagnetic systems. For the reason of these advantages we investigate in this report dependence of the system magnetic moment on carrier concentration using our modified EOM method. We also analyze influence of asymmetric densities of states on ferromagnetic alignment. The results are compared with DMFT-Quantum Monte Carlo calculations and with Hubbard I and III approximations.