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Low temperature phases of periodic Anderson model with electron-phonon correlated conduction band ENZHI LI, Louisiana State University, PENG ZHANG, Carnegie Institute of Washington, KA-MING TAM, JUANA MORENO, MARK JARRELL, Louisiana State University — We study a periodic Anderson model with the conduction electrons coupled to phonons. It has been shown by using the dynamical mean field theory that the model contains two disordered phases, the Kondo singlet phase and the local moment phase. In the hybridization–temperature plane, they are separated by a first order phase transition line which terminates at a second order phase transition point. At low enough temperature the entropy in the Kondo singlet phase is quenched by Fermi liquid formation, while the local moment phase will have residual entropy unless it is quenched by ordering. In this talk, we discuss this ordering by constructing the lattice susceptibilities from dynamical mean field theory.

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