Two-Impurity Dynamical-Mean-Field-Theory Study of the Periodic Anderson Model PING SUN, GABRIEL KOTLIAR, Rutgers University —
We solve the periodic Anderson model using a two impurity dynamical mean field
theory via QMC. We obtain the temperature v.s. hybridization phase diagram. In
the crossover region, we observe logarithmic temperature (T) dependence in energy.
As the quantum critical point (QCP) is approached, both the Neel and the lattice
Kondo temperatures decrease and the two lines do not tend to cross at a finite temperature. We observe strong ferromagnetic spin fluctuations near the QCP on the
Kondo side. Our results indicate that the critical spin susceptibility is local in space
at the QCP.

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Date submitted: 27 Mar 2013   Electronic form version 1.4