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Correlated disorder in Kondo lattice[1] MAXIM DZERO, XINYI HUANG, Kent State University — Motivated by recent experiments on Yb-doped $CeCoIn_5$, we study the effect of correlated disorder in Kondo lattice. Correlations between the impurities are considered at the two-particle level. We use mean-field theory approximation for the Anderson lattice model to calculate how the emergence of coherence in the Kondo lattice is impacted by correlations between impurities. We show that the rate at which disorder suppresses coherence temperature depends on the length of impurity correlations. As impurity concentration increases, we generally find that the suppression of coherence temperature is significantly reduced. The results are discussed in the context of available experimental data.

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