Motivation for the work

In the antiferromagnetic side a Kondo cloud is formed via the entanglement between the impurity spin and conduction electrons. On the otherhand in the ferromagnetic side the impurity spin disentangles from the conduction electrons.

- How does electronic correlation in the Fermi surface neighbourhood of the impurity spin and fermion exchange signs interplay in shaping the entanglement properties of the Kondo model?

- How does the around the impurity entanglement physics differ across the critical point? Can we understand the distinction on the basis of entanglement based witness and green function based measures?