

Abstract Submitted
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Analytical study of orbital selective Mott transition using slave-spin method YASHAR KOMIJANI, GABRIEL KOTLIAR, Center for Materials Theory, Rutgers University — We study the orbital selective Mott transition using slave-spin and slave-boson techniques. Within a single-site approximation, we identify the competing ground states of the spin-sector of a two-band Hubbard Hamiltonian in presence of the Hund's rule coupling as well as inter-orbital tunneling and provide an analytical explanation for the orbital correlation (mode locking) and Kondo physics. By mapping the lattice to the impurity model we make connections to the dynamical mean-field theory.

Yashar Komijani
Center for Materials Theory, Rutgers University

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