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Calculation of Magnetic Exchange Interactions in Mott-Hubbard Systems QUAN YIN, XIANGANG YIN, SERGEY SAVRASOV, University of California Davis — An efficient method to magnetic exchange interactions in systems with strong electronic correlations is introduced. It is based on a magnetic force theorem which evaluates linear response due to rotations of magnetic moments and uses a novel spectral density functional framework combining our exact diagonalization based LDA+DMFT method. Applications on spin waves and magnetic transition temperatures of 3d transition metal oxides and 5f actinide oxides are in good agreement with experiments.

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