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Spin wave excitations in Nd2CuO4 CHAD BIRCHER, HYUNJGE WOO, SHILIANG LI, PENGCHENG DAI, University of Tennessee — In this talk we will present the inelastic neutron scattering results of spin wave excitations of the electron-doped superconductor parent compound Nd2CuO4 (NCO). We carried out our experiments on the HET time of flight spectrometer at the ISIS facility in England. Our work will complement previous studies on the parent compound of hole-doped superconductors, La2CuO4 (LCO). We are studying whether there is a difference between the magnetic exchange coupling of hole-doped and electron-doped superconductors. We have probed energies from 50 meV to above 300 meV in order to detemine the magnetic exchange coupling. We will present the results and discuss the similarities and differences between LCO and NCO.

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