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Spin order and dynamics in a low doped nickelate ANDREI SAVICI, Johns Hopkins University, IGOR ZALIZNYAK, GENDA GU, Brookhaven national Laboratory, VASILE GARLEA, Oak Ridge national laboratory — Due to their similarities with high-Tc cuprates, doped 214 layered nickelates attract significant interest. We have recently performed elastic and inelastic neutron scattering experiments studying the low-Sr-doped material La₁.85Sr₀.15NiO_{4+ δ}. This sample has nominal hole concentration similar to that in optimally doped cuprate supeconductors. We observe static spin and charge ordering patterns and dynamic spin correlations, which we will compare to those arising from one dimensional physics expected in the stripe picture.

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