

# Neutron scattering approach on strongly correlated electron systems

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Strongly correlated electron system (SCES) has correlation between not only spins, charges, orbital and lattice, creating exotic function and properties. Dimensionality of interaction has another important role for the resulted properties. The complicated interactions in this class of materials are produced from synergic effects of basic interactions. Neutron can separately detect component effects in the energy-momentum space, such as spin correlation, lattice distortion effect etc. The phenomena produced from the interactions sometimes has very weak intensity or undetectable so far. The realization of J-PARC neutron source will give a ideal stage to elucidate mechanism of exotic functionality of SCES. In the symposium, I will describe some examples to be studied by neutrons in the future.