

Spirals in the t-J model and structure of the Spin-Glass State of $\text{La}(2-x)\text{Sr}_x\text{CuO}_4$.

There are numerous experimental data that indicate incommensurate spin structures in cuprates. The most systematic studies have been performed for $\text{La}(2-x)\text{Sr}_x\text{CuO}_4$. A short review of the data for this compound will be presented.

A spin spiral is the most natural and simple solution that arises in a weakly doped t-J model. In spite of simplicity the solution has fundamental problems. These problems have been resolved recently for the insulating "spin-glass" state of $\text{La}(2-x)\text{Sr}_x\text{CuO}_4$.

The theory allows us to explain quantitatively a number of effects that have not been understood before. This includes incommensurate neutron scattering, the anisotropy of in plane conductivity, negative magnetoresistance, etc.