

PLCCO and NCCO not as different as previously thought
both reduce gap with annealing. PLCCO just happens to
be fully gapped in SC phase.

SC fraction. \rightarrow cannot do

* SQW \rightarrow less temp difference than χ'' if any
| fluctuations seems to be striking around?
remove
detailed balance

biased opinion: resonance isn't all.

Name resonance comes
from weak-
coupling
approach)
of metals

Martin Grevens group. gap size super tiny
Spin gap upper limit SC ~~and~~ ordering temp.
 \Rightarrow it is a ~~sp~~ suppression on low-energy fluc.

Jgor paper: spin-gap limited superconductivity.
Suppression of fluctuations

PRL 96 137001 (2006) Motoyama

gap size? where graphs cross-over

Jgor: disordered SrCuO_2 when doped, a pseudogap appears

Suppression of low-energy spectral weight by disorder. By annealing
you get rid of disorder and allow for spin pairing

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i.e. discover we need low energy spin fluctuations.

Charge carriers are delicate.

hole-doped: holes segregate \rightarrow spin / charge modulation
electrons: remain commensurate. Suppress T_c in general compared to hole-doped

challenge getting mobile carriers in this system

unwanted defects out
(carrier density and mobility affected?)

Transport studies done on
AG/SC MCO?

at lower energy, there might be a suppression at T_c .
but at lower temperature is now only relevant, get out of reach

VCCO thermal displacement XRD study \rightarrow apical oxygen defects

this process can reduce mobile carriers
over reducing Nd_2O_3 coming out (Dai)

Cu^{3+} present like CuO_2 chains.

up left figure: why pseudogap filled when 2h \rightarrow 27h: thermal activation
 \Rightarrow no long-range spin wave due to suppression of excitations

AG: no SC, no magnetic order \rightarrow is it possible to have fluctuations with constant $J(\omega)$?
like chain cuprate

AG impurity \rightarrow appears as a gap. \downarrow hinders in form of a gap