

Abstract Submitted
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Examining Spin Fluctuations Pairing Model From Angle Resolved Photoemission Spectra¹ VIVEK MISHRA, Materials Science Division, Argonne National Laboratory, Lemont, IL 60439, U. CHATTERJEE, Department of Physics, University of Virginia, Charlottesville, VA 22904, J.C. CAMPUZANO, Materials Science Division, Argonne National Laboratory, Lemont, IL 60439 and Department of Physics, University of Illinois, Chicago, IL 60607, M.R. NORMAN, Materials Science Division, Argonne National Laboratory, Lemont, IL 60439 — The mechanism of superconductivity is a long standing puzzle in the cuprates. Among various proposed models, pairing through the exchange of spin fluctuations is one of the leading candidates. Here we use spectral functions measured from angle resolved photoemission spectroscopy to calculate this pairing interaction within a random phase approximation, and then determine whether for a reasonable choice of the Hubbard parameter ‘ U ’, we obtain a reasonable T_c .

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