

Abstract Submitted  
for the MAR07 Meeting of  
The American Physical Society

**Long range odd frequency triplet components in F/S/F trilayers** HAN-YONG CHOI, NAYOUNG LEE, SungKyunKwan University — We calculate the singlet and triplet pairing amplitudes of the ferromagnet/superconductor/ferromagnet (F/S/F) trilayers by solving the Usadel equation linearized near the transition temperature  $T_c$  in the diffusive limit. Here, S is a conventional singlet s-wave superconductor like Nb and F is a ferromagnet like CoFe. A particular focus is on the odd frequency triplet pairing components which have a long length scale in F region unlike the singlet pairing component. The triplet components in F/S/F are induced by the proximity effects when the two F's have non-collinear orientations. We will identify the fingerprints of the odd frequency triplet pairing components which will help to directly observe them in the F/S/F trilayers.

Han-Yong Choi  
SungKyunKwan University

Date submitted: 20 Nov 2006

Electronic form version 1.4