

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Kohn-Luttinger superconductivity of two-dimensional electrons in the presence of Rashba spin-orbit coupling ALI ASHRAFI, DMITRII MASLOV, Department of Physics, University of Florida — We consider a two-dimensional(2D) system of fermions with weak short-range repulsive interaction in the presence of Rashba Spin-Orbit coupling(SOC). We show that although Kohn-Luttinger instability in 2D in the absence of SOC occurs only to third order in the interaction, it occurs to second order in the presence of SOC. The critical temperature of the p-wave transition is calculated.

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Date submitted: 19 Nov 2010

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