Abstract Submitted for the MAR07 Meeting of The American Physical Society

Nonuniform mixed-parity superfluid state in Fermi gases M. S. MAR'ENKO, Hofstra University, K. V. SAMOKHIN, Brock University — We study the effects of dipole interaction on the superfluidity in a homogeneous Fermi gas with population imbalance. We show that the Fulde-Ferrell-Larkin-Ovchinnikov phase is replaced by another nonuniform superfluid phase, in which the order parameter has a nonzero triplet component induced by the dipole interaction.

Maxim Mar'enko Hofstra University

Date submitted: 20 Nov 2006

Electronic form version 1.4