## Abstract Submitted for the MAR09 Meeting of The American Physical Society

Quantum Hall wavefunction for Dirac fermions in high magnetic field FENG CAI, ZIQIANG WANG, Boston College — A salient feature of planar Dirac fermion system is the presence of zero modes in high magnetic field with non-trivial topological properties. Based on this fact we develop a field theoretic approach to derive the ground state wavefunction in the n=0 Landau level. We discuss possible connections to the unconventional quantum Hall states observed in graphene.

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