

Abstract Submitted
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The Marginal Fermi Liquid-A Derivation Based on Dirac's Constraints D. SCHMELTZER, CCNY — Dirac's method for constraints is used for enforcing the exclusion of double occupancy for Correlated Electrons. The constraint is given by the pair $Q(\vec{x}) = \psi_{\downarrow}(\vec{x})\psi_{\uparrow}(\vec{x})$ which annihilates the ground state $|\Psi\rangle$. Away from half fillings $Q(\vec{x})$ is replaced by a set of *first class* Non-Abelian constraints $Q_{\alpha}^{(-)}(\vec{x})$ which are restricted to negative energies. The propagator for the single hole is determined by a measure which is a function of time duration for the hole propagator. a)-The imaginary part of the self energy - is linear in the frequency. b)-In the Superconducting phase the tunneling density of states is asymmetric.

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