Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

**Fate of the Fermionic Quasiparticles at the Electronic Nematic-Smectic Quantum Critical Point** KAI SUN, BENJAMIN FREGOSO, EDUARDO FRADKIN, UIUC — We use the order-parameter theory of the electronic nematic- smectic transition of the fermionic liquid crystal phases, discussed in the previous talk, to study the effect of the low energy bosonic modes on the fermionic quasiparticles using RPA. Both the continuous model, which has a continuous rotational symmetry, and the lattice model, which has a discrete point group symmetry are studied. We find that at the nematic-smectic critical point, due to the critical smectic fluctuations, the dynamics of the fermionic quasiparticles near several points on the Fermi surface, which eventually become gapped under the development of CDW order, are not governed by a Landau Fermi liquid. Surprisingly, the fermions in the smectic phase also form a non-Fermi liquid. The transition between the quantum liquid crystal phases and the insulating CDW state is also discussed.

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Date submitted: 23 Nov 2007 Electronic form version 1.4