

Abstract Submitted  
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**Angle-dependent magnetoresistance and the presence of fluctuating hot spots on the Fermi surface of Tl2201**<sup>1</sup> SYLVIA LEWIN, JAMES ANALYTIS, University of California, Berkeley — The normal-state transport properties of cuprate high-temperature superconductors are not well understood. While the Hall angle in such materials is typically proportional to  $T^2$ , the in-plane resistivity has a more complicated temperature dependence. This has led to many theories of the scattering processes in such materials, including several that posit the existence of two or more independent scattering lifetimes. Here, we propose a model that may explain the cuprates' complicated normal-state behavior without the need to invoke multiple scattering channels: fluctuating hot spots on the Fermi surface, a result of transient antiferromagnetic order. I will demonstrate that this model can accurately simulate angle-dependent magnetoresistance data from  $\text{Tl}_2\text{Ba}_2\text{CuO}_{6+\delta}$ , and discuss what additional calculations and experiments will be performed in order to further test this model.

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