Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

**Giant Nernst Effect in $(TMTSF)_2PF_6$** WEIDA WU, Department of Physics, University of Texas at Austin, Austin, TX 78723, PAUL CHAIKIN, Department of Physics, Princeton University, Princeton, NJ 08544 — Here we present a detailed study of the Nernst effect in $(TMTSF)_2PF_6$, where giant resonant-like Nernst oscillations were found when a magnetic field is aligned with magic angles (inter- chain directions).[1] The amplitude of Nerst signal is order of 100 $\mu$V/K at H$\sim$7.5T and T$\sim$1K. The Nernst resonance at H//c rises gradually as T is lowered, reaches a peak at T$\sim$1K and then falls sharply to zero around 150mK. The Nernst signal is a highly non-linear function of H. This can be partially explained by the large magneto-resistance. The Nernst resonance has a weak pressure dependence. The sign-change of Nernst effect upon rotation through the magic angles suggests that the transport in $(TMTSF)_2PF_6$ is effectively coherent only in planes and only when these magic angle planes are parallel to the applied field.

[1]W. Wu et al, PRL 91, 056601 (2003)

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Date submitted: 30 Nov 2004 Electronic form version 1.4