Abstract Submitted
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Divergence of the effective mass in a strongly-interacting 2D electron system[1] SHIQI LI, City College of New York, New York, NY 10031; Graduate Center of CUNY, New York, NY 10016, ANISH MOKASHI, Northeastern University, Boston, MA 02115, BO WEN, City College of New York, New York, NY 10031, S.V. KRAVCHENKO, Northeastern University, Boston, MA 02115, A.A. SHASHKIN, V.T. DOLGOPOLOV, Institute of Solid State Physics, Chernogolovka, Moscow District 142432, M.P. SARACHIK, City College of New York, New York, NY 10031 — The diffusion thermopower in a low-disorder, strongly-interacting 2D electron system in silicon increases with decreasing electron density and tends to infinity at a finite density n_t. Comparison with earlier data for a high-disorder silicon system indicates that the critical density n_t does not depend on the degree of disorder. The increase of the thermopower is associated with a diverging electron mass in the close vicinity of an interaction-induced phase transition.

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