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## **Thermoelectric power of two-dimensional electron systems in the vicinity of the “metal-insulator transition”**

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This paper reports thermopower (TEP) and conductivity measurements through the metal-insulator transition for two-dimensional electron system in high mobility Si-MOSFETs. At low temperatures both thermopower and conductivity show critical behaviour as a function of electron density. When approaching the critical density  $n_c$  from the metallic side the diffusion thermopower appears to diverge and the conductivity vanishes. On the insulating side the thermopower shows an upturn with decreasing temperature. In addition, the conduction was found to exhibit critical behavior around  $n_c$  which appears to be largely consistent with the behavior of diffusion TEP. Many of the observed features of  $\sigma$  and  $S^d$  in the metallic and insulating regions in Si-MOSFETs are surprisingly consistent with a 3D picture of Anderson transition.

*Keywords* : strongly correlated electrons, metal-insulator transition