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Strongly-correlated electrons in two dimensions**Sergey Kravchenko**

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The spin susceptibility of strongly correlated electrons in a low-disorder two-dimensional electron system exhibits a sharp increase tending to a divergence at a finite electron density. Surprisingly, this behavior is due to the divergence of the effective mass rather than that of the g-factor. Our results provide clear evidence for an interaction-induced phase transition to a new phase that may be a precursor phase or a direct transition to the long sought-after Wigner solid.

Biography

Sergey Kravchenko has completed his graduation from Moscow Institute of Physics and Technology in 1982 and got his PhD from Institute of Solid State Physics in Chernogolovka, Russia, in 1998. He is mostly famous for his discovery of the metallic state and metal-insulator transition in two dimensions which was listed among the 50 main discoveries in Mesoscopic Physics of the last century in American Physical Society in 1999 ("A Century of Mesoscopic Physics: 1899 - 1999"). At present, he is a Professor of Physics at Northeastern University, Boston, USA.

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