



学際物質科学研究センター(TIMMS)セミナー

題 目： Flow diagram and Quantum critical behavior of 2D metal-insulator transition

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日 時： 6月28日(木) 11:00 - 12:00

場 所： 総合研究棟 B 0110 講義室

概要：

Early speculation that a clean 2D electron gas is always an insulator was upset by experiments showing increasingly clean 2D gases remain metallic. Systematic experiments forced a reexamination of the interplay between electron-electron interactions and disorder. I will show that a comprehensive treatment can explain all the observed transport and thermodynamic properties of the 2D metal-insulator transition. In particular it predicts the existence of a quantum critical point separating the metallic phase from the insulating phase. New experimental evidence supports this and other predictions.

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