Fluctuator Model of Memory Dip in Hopping Insulators

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Abstract - We show that the non-equilibrium dynamic in two-dimensional electron glasses close to metal-dielectric transition is sensitive to electric field confinement inside the sample, which leads to an early thermally activated conductance behavior and a strong non-equilibrium conductance response to the gate voltage, including a memory dip in a field dependence of conductance.

Keywords - Amorphous semiconductors, Low temperature glasses, Two-level systems

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