

# Anomalous Behavior In Magneto Transport Measurements in Liquid-gated Pt Thin Films

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We observed a superlinear behavior in the Hall resistance in liquid-gated

Pt thin films. This effect is consistent with a previous experimental result reported by Iwasa group in Japan [Phys. Rev. Lett. 111, 216803 (2013)].

They interpreted this phenomenon with the anomalous Hall Effect usually emerging in ferromagnetic materials even though Pt is considered to be a paramagnetic material according to the Stoner criterion. Here, we present our experimental progress and preliminary results.