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Magnetoconductance in high-mobility topological insulator Bi2Se3 devices HADAR STEINBERG, VALLA FATEMI, JAVIER SANCHEZ-YAMAGISHI, LUCAS ORONA, PABLO JARILLO-HERRERO, MIT — We report the fabrication and measurement of gate-tunable high mobility exfoliated (<100nm thick) Bi_2Se_3 devices. We measure electronic transport of these devices in magnetic fields up to 35T, and find a complex pattern of quantum oscillations consistent with both the surface and the bulk channels. We study the dependence of the oscillations on the magnetic field angle and gate voltage and discuss models for coexistence of surface and bulk oscillations.

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