Title:	Unusual Magnetotransport from two-dimensional Dirac Fermions in Pd3Bi2Se2
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Abstract:	Pd3Bi2Se2 has been proposed to be topologically non-trivial in nature. However, evidence of its non-trivial behavior is still unexplored. We report the growth and magneto-transport study of Pd3Bi2Se2 thin films, revealing for the first time the contribution of two-dimensional (2D) topological surface states. We observe exceptional non-saturated linear magnetoresistance which results from Dirac fermions inhabiting the lowest Landau level in the quantum limit. The transverse magnetoresistance changes from a semi-classical weak-field dependence to a high-field dependence at a critical field . It is found that , which is expected from the Landau level splitting of a linear energy dispersion. In addition, the magnetoconductivity shows signatures of 2D weak anti-localization (WAL). These novel magnetotransport signatures evince the presence of 2D Dirac fermions in Pd3Bi2Se2 thin films.
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