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## **【615】 Magnetoresistance from Fermi surface topology**

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Magnetoresistance of both topologically trivial and nontrivial materials was extensively studied during past few years. Different mechanisms were proposed to explain the magnetotransport properties, such as the extremely large non-saturating magnetoresistance observed in a number of materials, without arriving to definitive conclusions. By combining of ab initio calculations based on DFT with the Boltzmann transport theory we systematically investigate magnetoresistance in a large number of materials for magnetic field is applied perpendicular to the applied current. We show that the Fermi surface topology plays very important role in magnetoresistance, especially in explaining its anisotropy. We further focus on selected materials, e.g. copper and bismuth, finding very good agreement with experiment results.

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