bachelor project Quantum Electron Matter Group WZI; info a.devisser@uva.nl

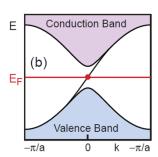
Transport of surface states of topological insulators

 Research into a new class of materials "topological insulators" (TI's)



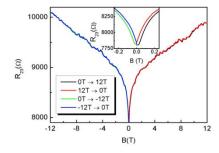
 Insulating in the bulk but conducting on the surface





- Surface states are protected by topology
- Project: to investigate surface states of TI's by magnetotransport
 - resistance and Hall effect
 - weak antilocalization
 - universal conduction fluctuations
 - Shubnikov-de Haas effect
 - topological Berry phase





For a popular introduction on TI's read: J.E. Moore, Nature 464 (2010) 8916

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