Lecture 13: Cyclotron resonance and deHaas-van Alphen effect and quantum Hall effect

The de-Haas-vanAlphen effect is explained using the quantized orbits and its usefulness in mapping Fermi surfaces is explained. The phenomenon of magnetic breakdown is discussed. The phenomenon of integer quantum Hall effect in Si-MOSFET is described.

Reading: Mardar 16.5.2, 16.5.3, 19.5.1, 25.5