PHYSICAL KINETICS

12 Lectures

Lecture 1.

Lecture 2.
\(\tau\) - approximation for collision integral. Diffusion equation, linear response, conductivity and the Einstein relations. Magneto-resistance, the Hall effect and thermo-power for electrons in metals.

Lecture 3.

Lecture 4.
Self-consistent field and collision-less dynamics for plasma. Plasma oscillations and the Landau damping.
Lecture 5.


Lecture 6


Lecture 7.

Boundary problem for kinetic equation. Normal and anomalous skin-effect.

Lecture 8.


Lecture 9.


Lecture 10.

Lecture 11.

Lecture 12.

Non-equilibrium superconductivity. Kinetic equations. Charge imbalance. Penetration of electric field in superconductors. Collective excitations... 60

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References


[12] Non-equilibrium Phonons, ed by A.N. Kaplyansky and Bron, North Holland

