

QUANTUM PHYSICS

- Non-Degenerate and degenerate time independent perturbation theory
Fine and hyperfine structure - Stark and Zeeman effects
- Time dependent perturbation theory
Fermi's golden rule - Adiabatic transition - Two states quantum systems
- Scattering
Partial wave analysis - Optical theorem - Resonance
- Spontaneous emission of radiation
Second quantisation of electromagnetic field
- Path integrals in quantum mechanics
Relativistic quantum mechanics
Klein-Gordon and Dirac equations