University of Pretoria Yearbook 2019

Quantum optics 712 (PHY 712)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	10.00
Prerequisites	No prerequisites.
Contact time	4 lectures per week
Language of tuition	Module is presented in English
Department	Physics
Period of presentation	Semester 1

Module content

Coherent states of free and forced oscillators. Semi-classical electrodynamics (including time dependent perturbations and stimulated transitions). Mode composition of the electromagnetic field. Properties of laser light. Resonators and modes. Laser types (ruby, Nd-YAG, Carbondioxide, He-Ne, excimer and GaAs).