

University of Pretoria Yearbook 2020

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).

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