

University of Pretoria Yearbook 2016

Nuclear physics 719 (PHY 719)

Qualification	Postgraduate
Faculty	Faculty of Natural and Agricultural Sciences
Module credits	10.00
Prerequisites	Admission only with permission by the Head of the Department of Physics
Contact time	2 lectures per week
Language of tuition	English
Academic organisation	Physics
Period of presentation	Semester 2

Module content

Quarks, Nucleons, Isobaric Invariance, NN-interaction, Two-nucleon system, Deuteron, Elements of scattering theory, NN-scattering, Few-body nuclear systems, General properties of medium and heavy nuclei, Nuclear models, Radioactivity, Nuclear reactions, α -, β -, and γ -decays, Nuclear fission, Nuclear fusion, nuclear astrophysics.

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