

School of Mathematics

Module MA3441 — Quantum mechanics I
(JS Theoretical Physics)

2011-12

Lecturer: Prof. Michael Fry

Requirements/prerequisites: prerequisite: MA2342

Duration: Michaelmas term, 11 weeks

Number of lectures per week: 3 lectures including tutorials per week

Assessment:

ECTS credits: 5

End-of-year Examination: This module will be examined jointly with MA3442 in a 3-hour examination in Trinity term, except that those taking just one of the two modules will have a 2 hour examination. However there will be separate results for MA3441 and MA3442.

Description: Refer to (first half of) <http://www.maths.tcd.ie/pub/official/Courses08-09/441.html>

Learning Outcomes: On successful completion of this module, students will be able to:

- state the basic postulates of quantum mechanics;
- derive the general Schroedinger and Heisenberg equations of motion;
- apply quantum theoretical techniques to complex problems;
- demonstrate understanding—at an entry level—of 20th/21st century physics;
- solve problems in assigned and graded weekly problem sets.

November 2, 2011