EXPERIMENTAL AND THEORETICAL PHYSICS
PHYSICAL SCIENCES: HALF SUBJECT EXPERIMENTAL AND THEORETICAL PHYSICS

Departmental Contact: Dr R. Padman: (email: II-physics@phy.cam.ac.uk)
Course Website: www.phy.cam.ac.uk/teaching/

Students offering **Option A** must take all 4 **Core courses** in the Michaelmas Term, 2 of the **Options courses** in the Lent and Easter Terms, and **Computational Physics**. They must in addition take either **Physics in Action** or **Physics Education** or both, and a suitable selection from **Theoretical Options** and **Other Further Work**.

Students offering **Option B** must take all 4 **Core courses** in the Michaelmas Term, 3 of the **Options courses** in the Lent and Easter Terms, and **Computational Physics**. They must in addition take 3 courses from **Physics Education**, **Theoretical Options** and **Other Further Work**.

The material of the **Theoretical Options** is examined at the start of the term following that in which each block, TP1 and TP2, is given.

All students are recommended to attend the **Non-examinable courses** Concepts in Physics and Current Research Work in the Cavendish Laboratory.

Students taking Half Subject Experimental and Theoretical Physics as part of Part II Physical Sciences will take any 2 of the **Core courses** in the Michaelmas term and any one of the **Options courses** in the Lent and Easter terms. Candidates also take 2 units of further work selected from **Theoretical Options, Physics in Action**, **Physics Education** and **Other Further Work**. A prior knowledge of Physics equivalent to the material covered in Part IB Physics A and Part IB Physics B will be assumed.

The course will begin with a meeting on the first Wednesday of Full Term (8 Oct.) at 9.30 a.m. in the *Pippard Lecture Theatre*.

Lectures are given at the *Cavendish Laboratory (West Cambridge),* in the *Pippard Lecture Theatre* unless otherwise stated.

Core Courses

PROF. E. M. TERENTJEV
Thermal and Statistical Physics. (Eighteen lectures) W. 11 (First two weeks only) Tu. F. 9

PROF. D. A. RITCHIE
Advanced Quantum Physics. M. W. Th. 9

DR H. P. HUGHES
Optics and Electrodynamics. M. W. 10

DR M. HAEHNELT
Relativity Tu. Th. F. 10 *Sackler Lecture Theatre, IoA*

Computational Physics

Non-examinable courses

DR C. D. MACKAY
Topics in Astrophysics. Tu. Th. F. 11 *Sackler Lecture Theatre, IoA*

Theoretical Options

PROF. B. R. WEBBER AND DR C. H. W. BARNES
Theoretical Physics TP1. M. W. 12–1 (Twelve lectures beginning 13 Oct.); Tu. 2–4 (Four classes, 14 Oct., 28 Oct., 11 Nov., 25 Nov.)

Physics in Action

Options Courses

DR M. GROSCHE
Quantum Condensed Matter Physics. Tu. Th. 10

PROF. C. J. CLARKE
Astrophysical Fluids. M. W. F. 9 *Sackler Lecture Theatre, IoA*

PROF. D. R. WARD AND DR C. G. LESTER
Particle and Nuclear Physics. M. W. 11

DR P. CICUTA
Soft Condensed Matter and Biophysics. T. Th. 9

DR J. S. RICHER AND OTHERS
Computational Physics. M. W. 12 (First eight lectures)

PROF. P. B. LITTLEWOOD
Concepts in Physics. M. W. 12 (Eight lectures beginning 16 Feb.)

THE STAFF OF THE CAVENDISH LABORATORY
Current Research Work in the Cavendish Laboratory (not examinable). See Part III Experimental and Theoretical Physics (p. 000)

PROF. M. C. PAYNE AND PROF. W. J. STIRLING
Theoretical Physics TP2. Tu. Th. 12–1 (Twelve lectures, beginning 22 Jan.); Tu. 2–4 (Four classes, 27 Jan., 10 Feb., 24 Feb., 10 Mar.)

DR J. S. RICHER AND PROF. A. M. DONALD
Physics in Action. F. 11.30 *Mott Seminar Room*
Group Project Work. F. 2–4 *Ryle Seminar Room*

Options Courses (continued)

DR M. GROSCHE
The same continued. Tu. W. F. 10 (First six lectures)

PROF. D. R. WARD AND DR C. G. LESTER
The same continued. M. W. F. 9 (First six lectures)

DR P. CICUTA
The same continued. M. 10. Tu. Th. 9 (First six lectures)

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NATURAL SCIENCES TRIPOS, PART II (continued)

MICHAELMAS 2008	LENT 2009	EASTER 2009
Physics Education DR L. JARDINE-WRIGHT AND OTHERS Physics Education.	DR L. JARDINE-WRIGHT AND OTHERS The same continued.	
Other Further Work DR D. F. BUSCHER AND OTHERS Experiment E1. PROF. R. J. NEEDS AND OTHERS Research Review. DR D. F. BUSCHER Long Vacation Project. *Laboratory Hours.* The experimetal laboratories are open M.–F. 11–5.45	DR D. F. BUSCHER AND OTHERS Experiment E2. PROF. R. J. NEEDS AND OTHERS The same continued.	