

MPhys 4th year PHY408/PHY445 Literature Search / Directed Reading Topic List 2010-2011

PHYSICS LITERATURE SEARCH (PHY408)

1. The application of physical science in forensics. Dr. Richardson
2. Layer-by-layer techniques in organic thin film fabrication. Dr. Richardson
3. Neutrino masses and mixing. Dr. Cartwright.
4. One hundred years of cosmic ray physics. Dr. Cartwright
5. Philosophy of science: Dr. Cartwright
6. Physics in science fiction: Dr. Cartwright
7. The physics of radio antennae: Dr. Daw
8. Dark energy and the accelerating universe: Prof. Spooner
9. Dark matter and substructure in the galactic halo: Prof. Spooner
10. The search for neutrinoless double beta decay: Prof. Spooner
11. Semiconductor lasers – developments and applications: Prof. Mowbray
12. Modern data communication systems: Prof. Mowbray
13. Physics of the brain and the mind: Prof. Mowbray
14. Why should taxpayers support science? The science of science policy: Prof. Jones
15. Terahertz science and technology: Dr. Cockburn
16. Silicon optoelectronics: Dr. Cockburn
17. Neutrino oscillations: Dr. Thompson
18. Detection of ultra high energy neutrinos: Dr. Thompson
19. Harvesting energy from sunlight: Dr Lidzey
20. The history of microscopy: Dr Lidzey
21. Global warming - the science: Dr. Whittaker
22. Quantum teleportation - Dr. Pieter Kok
23. Quantum optics with diamond impurity centres - Dr. Fox
24. The search for the Higgs boson - Dr. Costanzo
25. Where is high T_c superconductivity going? Prof. Whittaker
26. Has dark matter been discovered? Dr Kudryavtsev. Requires at least 2 students.
27. Nanotechnology in biology. Dr. Geoghegan
28. Grey goo or great news? Public reactions to nanotechnology. Prof. Jones
29. Imaging atoms. Dr. Jamie Hobbs
30. Super resolution optical microscopy. Dr. Jamie Hobbs

ASTRONOMY DIRECTED READING (PHY445)

31. Observed properties of galaxies at high redshift: Prof. P. Crowther
32. Supernovae from high mass stars: Prof. Crowther
33. Dark energy and the accelerating universe: Prof Spooner
34. Dark matter and substructure in the galactic halo: Prof Spooner
35. Binary star formation: Dr Goodwin
36. The initial conditions of star formation: Dr Goodwin
37. Physics of Planck: the next generation of microwave anisotropy: Dr Cartwright
38. The star formation history of the Universe: Prof Tadhunter
39. Do AGN affect the evolution of their host galaxies? Prof Tadhunter
40. Detecting extrasolar life: Dr. Simon Goodwin - RESERVED