## Unsolicited Advice on Studying in Oxford

- 1. Are you smart enough? Yes.
- 2. Were you admitted by mistake? No.

You will, at some point, feel that you know very little and that everyone else is much smarter than you are. This experience is universal. However, there is a lot of bluffing in Oxford. Understanding physics properly is hard work, and the simulacrum of understanding is much easier to attain than the reality. Your focus should be on your understanding, not on whether someone else appears to be/pretends to be a budding Einstein.

Be not afraid! Doing well in physics requires absolute conceptual honesty as to what you understand and what you don't. This becomes more and more significant the further you go in the subject. Therefore, if you don't understand something, ask. If I stop making sense in a tutorial, interrupt me. Never, ever be afraid to ask a question because you feel you will look stupid.

In a related vein, try not to learn derivations or formulae by rote. If you need to use something, try and derive or estimate it before looking it up. This develops your analytic skills and tests your understanding. Of course, when it comes to exam term remember as much as you can - exams are not the place for being original!

Try not to use calculators. One of the arts of physics is to be able to estimate quantities and make approximate calculations ('spherical cows') that capture much of the behaviour of more complex systems. Blind reliance on the numbers produced by calculators can lead to physically nonsensical answers caused by input errors (the size of an atom is  $10^{-10}$  metres not  $10^{10}$  metres).

Remember that you do not have university exams before June (n.b. there are college collections in January). You are not expected to master all of the material first time round (though of course it is nice if you do!). If you work through the year, then come June the exam will be fine.

Enjoy it! The subject is beautiful and Oxford is a great place to learn it.

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