## School of Physics and Astronomy Masterclasses: Autumn 2015



We are offering an exciting opportunity for Year 12 and Year 13 pupils to learn about cutting-edge physics direct from researchers active in the field. These popular science sessions will involve talks, workshops, discussions and handson activities.



## Particle Physics and Cosmology Saturday 10th October 2015, 11am – 3pm

This masterclass will focus on the fundamental particles and forces and what we can learn about them from the Large Hadron Collider and cosmological observations. What is dark matter and how can we find it? What does the Higgs particle do? What is string theory and are there extra dimensions? Through lectures and hands-on activities, this masterclass will address these and other questions. A free lunch will be provided.

Nano and Beyond : Quantum Physics and Atom Technology Saturday 17th October 2015, 10am – 4pm

This masterclass will introduce students to the world of state-ofthe-art nanotechnology via lectures, hands-on experiments and discussion groups. Participants will have the opportunity to image atoms, molecules, and nanostructures using scanning probe microscopes; investigate the interaction of light with nanoparticles; and discuss the future and potential of nanotechnology with staff and students. A free lunch will be provided.

Attendance is free of charge.\*

\*a £10 returnable deposit with application is required

Places are limited, to register visit:

http://www.nottingham.ac.uk/physics/outreach/masterclasses.aspx