



## **John Adams Institute for Accelerator Science Lecture Series**

Thursday 4<sup>th</sup> June 2015 at 3:00 pm  
Fisher Room, Denys Wilkinson Building

### ***JAI Introducing: Introduction Seminars by Recently Started Research Staff***

#### **Protons, electrons and muons**

Dr Androula Alekou  
Postdoctoral Research Assistant

Starting from describing a novel magnet-structure I designed for the emittance reduction of a muon beam during my PhD at Imperial College, I'll move to the optics and collimation studies I performed during my CERN Fellowship for the future High-Power Proton Synchrotron that could be built at CERN. Finally, after briefly introducing the motivation behind the Diamond Light Source Upgrade, the objective of my current post-doc, I will close with notes on what I like doing outside working hours.

#### **Driving Plasma Wakefields - experiments and simulations with particle and laser beams**

James Alex Holloway  
Postdoctoral Research Assistant

As an introductory seminar this talk focuses on the work performed during my PhD at University College London, highlighting the experiments I participated in as well as the simulation studies that have gone on to form part of my current work here at Oxford. The talk will describe the two experiments I participated in at the Central Laser Facility, RAL, where electrons were accelerated to near GeV energies using a high amplitude plasma wakefield driven by the Astra Gemini laser system. The talk will address my part in the AWAKE collaboration that aims to use the SPS proton beam at CERN to drive plasma wakefield acceleration, and how this work ultimately led to the development of the Diamond experimental proposal. I'll also try to give an impression of my passion for outreach and finish off the talk by detailing the current and future work I am doing here at Oxford.

For further details contact Glenn Christian: [glenn.christian@physics.ox.ac.uk](mailto:glenn.christian@physics.ox.ac.uk)