Developing the Virtual Laboratory

19th March 2012,
St Aidans College,
Durham University, UK

An interdisciplinary 1 day HEA workshop on utilizing computer virtualizations to enhance the laboratory learning experience of new science, engineering and medicine students in the UK

Confirmed Guest Speakers:
• Prof N Braithwaite & Dr P Hatherly, The Open University
• Dr S Haase, Freie Universität Berlin
• Prof Ray Land, Durham University

http://tinyurl.com/6w58bj7 for further details
Many students arrive at University with very little practical laboratory experience and with a significant level of anxiety about working in a laboratory. This anxiety presents a particular problem for non-traditional and international student groups. Recently some Universities have started to address this issue by deploying interactive screen experiments as pre-laboratory tasks. At Durham University, for example, this has been done for both undergraduate physics, and for Foundation level physics and chemistry with a significant improvement in the student learning experience. This workshop will have the theme of ‘supporting science students with virtual experiments’ and represent the first forum where best practice in Interactive Screen experiments and their underlying pedagogy can be discussed and shared. Through dissemination of the work performed at Durham an informal network of interest has evolved at both Foundation and Undergraduate level, which includes departments teaching Physics, Chemistry, Engineering, Biology, and Surgery.

By bringing these two sectors together around virtual experimentation this workshop will facilitate critical discussion in relation to enhancing the quality of the student learning experience, with a particular focus on improving the retention, attainment and success of non-traditional student groups through blended learning.

11.00-11.05 Welcome, Sam Nolan, Durham University & Paul Yates, HEA

11:10-12:00 Guest Speaker: Prof. Ray Land, Durham University

12:00-12:50 Practical science at a distance: Virtually better than the real thing? Guest Speakers: Prof Nick Braithwaite & Dr Paul Hatherly, The Open University

12:50-13:45 Lunch

13:45-14:20 Interactive Screen Experiments and Laboratories, Dr Sebastian Haase, Freie Universität Berlin (Via Skype)

14:20-14:40 Screen Experiments for Chemistry at Durham, Dr Jacquie Robson, Durham University

14:40-15:00 Online Resources for Chemistry Laboratories, Dr Anna Betram, Nottingham University

15:00-15:20 Screen Experiments for Civil Engineering, Prof. David Toll, Durham University

15:20-15:40 Screen Experiments for Physics, Dr Marek Szablewski, Durham University

15:40-16:00 Supporting Student Learning with Screen Experiments, Dr Sam Nolan, Durham University

16:20-16:40 Coffee & Depart