Two post-doctoral Research Associate positions in the Particle Physics Experiment Group with the ATLAS Experiment

The experimental particle physics group at the University of Edinburgh has significant involvement in the ATLAS experiment which studies physics at the high energy frontier at the LHC. The group made substantial contributions to the direct discovery of the Higgs boson in July 2012. It currently plays a leading role in Higgs analyses, underlying event physics, simulation, event generator tuning, data management and novel computing technology. Linked to these efforts we have a strong interest in the High-Level Trigger (b-jet and muon signatures, the LS1 upgrade and optimisation and parallelisation R&D studies), the Level-1 Track Phase 2 Upgrade and searches for New Physics. The group is very active in the simulation and performance studies for the upgraded ATLAS tracking detectors with a particular interest in pixel technology. As part of the UK collaboration to develop and build the ATLAS silicon pixel disks the group leads the integration of the pixel disk services, takes part in the front-end chip testing and the pixel module development and will play a significant role in the production of the ATLAS pixel disks. These activities are led by Professor Phil Clark, Dr Christos Leonidopoulos and Dr Victoria Martin.

We are seeking two Post-doctoral Research Associates to strengthen our activities within the ATLAS Experiment.

On the physics side, you will be expected to contribute to the Higgs analysis of the 2011-12 dataset and future studies in the H to bb or the H to 4 lepton (ZZ*) channels. The physics goals are the determination of the Higgs mass, CP properties and couplings. There is also the possibility to engage in a longer-term program on searches for new heavy particles to exploit the increase in the LHC collision energy after LS1.

In addition you will be expected to participate in one of the group's service tasks. One of the two positions will be on the development of common algorithms for offline and HLT in the future ATLAS framework. There will be an option to expand to fast reconstruction software development by building on the group's strong involvement and expertise in the new Integrated Simulation Framework. The second position can be either on HLT or pixel technology for the ATLAS upgrade. Please indicate in your application if you have a strong preference for a particular position, or if you want to be considered for both.

Salary Scale: £30,424 - £36,298
Fixed Term: 2 years with the possibility of extension
Deadline: 05 June 2013
To apply and for further information, please visit: https://www.vacancies.ed.ac.uk/ and enter reference number 013862.

Please contact Professor Phil Clark (p.j.clark@ed.ac.uk) or Dr Christos Leonidopoulos (Christos.Leonidopoulos@ed.ac.uk) if you wish to discuss these positions in more detail.