

PhD Studentship on the ATLAS Experiment

University of Sussex /SEPnet

Applications from talented and creative individuals are invited for a 3-year PhD position to work on the ATLAS experiment at the University of Sussex, under the supervision of Dr Antonella De Santo and in collaboration with Prof. Steven King at the University of Southampton.

The studentship, available from October 2012, is funded by the SEPnet alliance of Physics and Astronomy departments in the South-East of England, within the NExT (particle physics phenomenology) and RDI (radiation detection and instrumentation) research themes, and by the University of Sussex. The student will work on the search for SUSY motivated signals in multilepton final states, a physics analysis that Sussex is leading at ATLAS. Of particular interest for this studentship are E6 inspired SUSY models, developed by Prof King and collaborators, which may predict the presence of many leptons with low-to-moderate transverse momentum. Simulation tools will have to be developed to integrate these models in the ATLAS simulation. This will then lead to the optimisation of signal selections for E6 SUSY motivated scenarios in ATLAS data. Triggering and reconstruction of soft leptons, especially in a high luminosity regime, will also be an important aspect of the project.

Full engagement of the student in the ATLAS running and operations, including contributions in areas where Sussex has technical responsibilities, will be expected.

The student will benefit from an excellent experiment-theory research environment at Sussex and within SEPnet, also through participation in graduate courses, shared supervision, annual workshops and graduate conferences.

The student will receive current UK/EU fees plus a yearly stipend of £13,590, plus a research training support grant of £1,200 p.a. for travel of fieldwork. The studentship is open to UK and EU applicants.

Interested candidates should apply on-line at the University of Sussex, following the instructions given at <http://www.sussex.ac.uk/physics/pgstudy>. Early application is strongly encouraged. Interviews will take place in January and February 2012, until the position is filled.

Informal inquiries should be directed to Dr Antonella De Santo (a.de-santo@sussex.ac.uk) at the University of Sussex and to Prof. Steven King (s.f.king@soton.ac.uk) at the University of Southampton.

