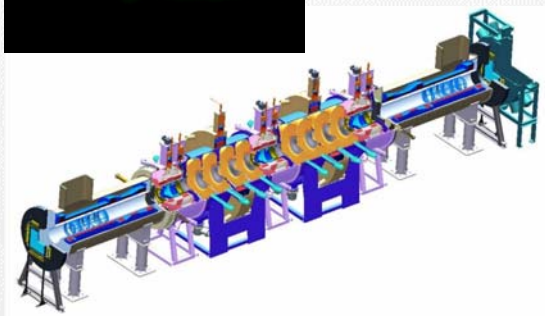
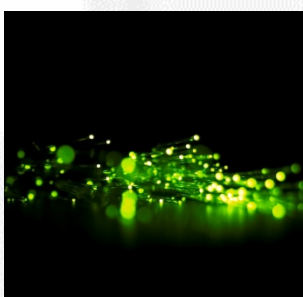
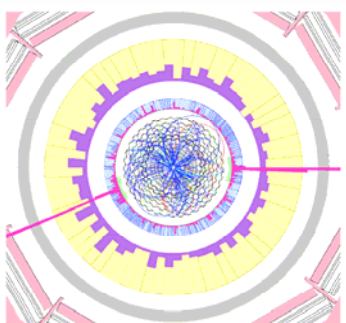


The **Particle Physics Group** within the School of Engineering and Design at Brunel University is currently able to offer the following Science and Technology Facilities Council (STFC) funded **PhD studentships**. The student receives a tax-free stipend of ~£18k/yr (equivalent to a salary of ~£27k) for 3 years. Students finishing the PhD training will possess transferable skills and expertise suitable for the development of a successful career within industry or academic research.



Commissioning of the Endcap Calorimeter for CMS and analysis of early Physics at the Large Hadron Collider

This summer the Large Hadron Collider, at CERN Switzerland will begin to operate. Brunel have contributed to the design, prototyping, construction and commissioning of the endcap electromagnetic calorimeters of the Compact Muon Solenoid experiment.

This PhD will involve contributing towards the understanding of the first data coming from the endcap calorimeter, working with teams who are responsible for the reconstruction of electron and photon objects in the calorimeter and contributing towards an early physics analysis that the group is involved in. A large-scale distributed Grid computing environment will be used to analyse the data sets produced by the CMS experiment. A significant period of this studentship will be based at CERN.

MICE

MICE is a multi-national experiment running at the Rutherford Appleton Laboratory, in Oxfordshire, whose aim is to provide an engineering proof of concept of a technique for creating high intensity beams of muons. The technique is expected to be important for the creation of the next generation of particle accelerators.

The experiment is currently being assembled and now is the perfect time for a student to join. They would be present during the commissioning, data taking and analysis of the full experiment and would thus gain valuable experience in all stages of the operation of a large project. This PhD combines aspects of high performance computing, real-time programming, data analysis and accelerator physics.

For further information, please contact:

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The PhD positions offered will be based at Brunel University in the *Particle Physics Group*. Both positions will involve off-site working, for periods up to 18 months, at CERN and RAL respectively.