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PhD in UCL Centre for Doctoral Training (CDT) in Data Intensive Science

UCL has been selected, after a highly competitive process, to host STFC's first Centre for Doctoral Training (CDT) in data intensive science (DIS). DIS encompasses a wide range of areas in the field of 'big-data' including the collection, storage and analysis of large datasets, as well as the use of complex models, algorithms and machine learning techniques to interpret the data. The CDT's focus is to provide a unique studentship experience, that will produce highly trained and employable PhD graduates with advanced and widely applicable skills in DIS, who will ultimately become the future leaders of this field in both academia and industry.

The studentship includes extensive training in the field of DIS. In the 1st year of the PhD a series of intensive courses, designed with the aid of our industrial partners, will provide a strong theoretical and practical grounding in the techniques, tools and programming languages of DIS, that are commonly used in both academia and industry. This will be followed by undertaking a research project on one of STFC's world leading DIS facilities, such as Planck, Gaia, Euclid, LSST, the Square Kilometre Array and ATLAS at the Large Hadron Collider, amongst others. The research projects will involve the application of DIS to the large datasets collected at these experiments, as well as the development of new and cutting edge techniques in collaboration with other related disciplines, such as the Computer Science, Statistical Science and the Mathematics departments. The studentships will also involve a 3-6 month secondment at one of UCL's DIS partner institutes, who are either power users or world leaders in DIS techniques, such as the BBC, The Economist, The MET Office, CERN openlab, NCC Group, Starcount, Lenovo and Mellanox amongst others. Training will be supplemented by regular summer schools and networking events, involving key industrial and academic figures. Successful candidates will obtain a unique skillset, covering DIS in both academia and industry, build key contacts and networks in both areas, work with cutting edge technologies and will be equipped to become world leading data scientists.

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This picture shows an artist's concept of the Square Kilometre Array, a huge radiotelescope planned for South Africa and Australia, which will produce vast quantities of data. Photo credit: Square Kilometre Array

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