

Department of Statistics and Faculty of Medicine and Health  
University of Leeds, UK  
University of Leeds Anniversary Research Scholarship  
Quantitative PET-MR Image Reconstruction at Ultra Low Radioactive Doses

We are looking for a keen individual to pursue research towards a doctoral degree in Medical Imaging. The aim of this project is to optimize image reconstruction in order to achieve low dose PET/MRI. Mathematical, statistical and physical models will be utilized to achieve quantitative PET-MR images. The successful candidate will develop pioneering mathematical methods in open source software libraries and will address key problems involved in PET imaging. The methods will be translated to a clinical context and assessed in rabbits and patients suffering from atherosclerosis.

Existing collaboration with Siemens will be pivotal in translating the methods to their commercial systems and a successful project may have international impact.

The successful candidate will register for doctoral studies within a new division focusing on Biomedical Imaging at the University of Leeds and will work together with Dr Robert Aykroyd, Dr Harry Tsoumpas, both Leeds, and Professor Zahi A. Fayad, Director of the Translational and Molecular Imaging Institute at Icahn School of Medicine at Mount Sinai in New York, who will be the clinical advisor of this project. The University of Leeds is the second largest University in the UK and the Leeds Teaching Hospital is the second largest healthcare provider in the country. The student will also have the opportunity to work for a few months at Mount Sinai in New York.

The closing date for applications, and references to be received, is the 8th December 2014. The studentship will cover the cost of tuition fees (UK/EU rate) and a standard maintenance package (approximately £14,000 for session 2015/16). The scholarship will provide funding for 3 years subject to satisfactory progress. Only applications from UK/EU nationals will be valid for this particular scheme. To be considered, applicants should hold a strong degree (equivalent to at least a UK upper second class honours) in a relevant area of Applied Mathematics, Statistics, Computer Science, Engineering, Physics, or other similar disciplines. Experience in computer programming will be useful but not essential. Excellent communication skills will be necessary.

For further details see the Faculty of Medicine and Health webpages:  
[medhealth.leeds.ac.uk/info/1400/faculty\\_graduate\\_school](http://medhealth.leeds.ac.uk/info/1400/faculty_graduate_school)  
and for information about the Department of Statistics the webpages:  
[www.maths.leeds.ac.uk/statistics](http://www.maths.leeds.ac.uk/statistics)

For expression of interest contact:

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