



## PhD Studentship in

# ***Correction of whole body PET data for motion induced confounds using co-acquired motion fields***

Following the improvement of spatial resolution of clinical positron emission tomography (PET) to 3 *mm* the main limiting factor hampering its further advance is subject motion but developing motion correction techniques for different types of motion is challenging. Possible solutions might be offered by combining PET and magnetic resonance imaging (MRI) systems. The use of MRI can provide independent estimation of the subject motion to correct PET data. In this research project, the student will combine PET and MRI to achieve motion correction, which would be feasible to translate into clinical practice. The successful candidate will join a collaborative effort between the Medical Physics group at the University of Leeds and Imanova Ltd. a leading imaging centre. The supervisory team consists of: Dr Harry Tsoumpas, Professor David Buckley (Leeds) and Dr Will Hallett and Professor Roger Gunn (Imanova). For informal inquiries contact Dr Tsoumpas ([C.Tsoumpas@leeds.ac.uk](mailto:C.Tsoumpas@leeds.ac.uk)).

**Studentship Details:** The studentship will cover the cost of tuition fees (UK/EU rate) and an enhanced maintenance package. An allowance towards travel / training costs will also be available. The studentship will provide funding for 4 years subject to satisfactory progress during the research candidature. Only UK or EU citizens are eligible to apply. To be considered for a PhD at the University of Leeds, you should hold a strong degree (equivalent to at least a UK upper second class honours degree) in a relevant area of engineering, computing, physics or other discipline appropriate for the PhD project you are applying for. The project will involve both software development (using well established C++ libraries) but also experimental design in collaboration with the PET-MR scanner manufacturer.

Applicants should send a full CV and one page letter expressing their interest to [c.tsoumpas@leeds.ac.uk](mailto:c.tsoumpas@leeds.ac.uk). Two references from academic referees should be independently received directly from the referees. The position will be filled upon allocating an excellent candidate and the starting date will be in October 2015.