UNIVERSITY OF BIRMINGHAM
School of Physics and Astronomy
College of Engineering and Physical Sciences

Post-doctoral research fellow in Atom Interferometry for Gravity Sensors

Starting salary in the range of £27,428 to £35,788 a year, with potential progression to £37990 a year. The post is available from 1st October 2011 for a period of 2 years.

The School of Physics and Astronomy has a vacancy for a post-doctoral research fellow in Atom Interferometry for Gravity Sensors.

Applicants are sought to strengthen our interdisciplinary research programme in quantum physics based sensors, with emphasis on matter wave interferometry for measuring gravity and gravitational effects.

Matter wave interferometers have the potential to improve our sensing capabilities. Their inherent phase sensitivity is so large that in practical applications the limitations will be set by auxiliary systems and technical issues. A potential cure to dramatically reduce the technical noises lies in differential measurements. The post-holder will undertake a detailed study in the performance of different implementations of this concept. This work will be strongly linked to other components of an interdisciplinary research programme, including the experimental realisation of a new matter wave sensor and sensor data mining for practical applications.

The candidate is expected to have a strong background in quantum optics, cold atom research or precision measurements. Further, he/she is expected to have completed or be near completion of a PhD in physics, astronomy or mathematics, or in possession of equivalent relevant research experience.

Informal enquiries to: Prof. Kai Bongs k.bongs@bham.ac.uk

Please quote ref: 43746 **Closing date: 30 September 2010**

For full considerations, candidates must submit an electronic application online.
In addition to this submit a Curriculum Vita, list of publications, a statement of research interests and arrange for three letters of reference to be sent to:

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