

# **DSTL-funded PhD studentship on the development of an Atom-chip ring gyroscope (2015)**

We are looking for an exceptional and strongly-motivated UK or French candidate for a full-time fully-funded PhD studentship financed by the DSTL UK-France PhD programme.

The main goal is to develop, experimentally and theoretically, the main ingredients for a working atom-chip ring gyroscope. Particular attention will be paid to the processes initiating the gyro (pulsed excitations) and the subsequent detection of matter wave interference. The potential for producing a compact and accurate device will be evaluated for use in inertial navigation and geophysical studies. Further details of the project objectives and methods and be found here: [http://syрте.obspm.fr/Web\\_OnACIS/index.html](http://syрте.obspm.fr/Web_OnACIS/index.html)

It is expected that the successful applicant will spend the initial two years in the AMO research group at the University of Sussex on theoretical studies. The final two years will be based at the SYRTE laboratory in L'Observatoire de Paris on experimental work. Travel between the laboratories will be required throughout the studentship.

Supervision will be by Professor Barry Garraway at Sussex. In Paris, the student will be directed by Ass. Res. Prof. Carlos Garrido Alzar.

## **Type of award**

Postgraduate Research

## **Award amount**

Enhanced stipend of £17000 per annum, fixed for four years, with university fees waived.

## **Eligibility**

Students of UK and French nationality only. This is a requirement of the project sponsor.

Applicants must have a Master's degree or equivalent qualifications and experience. The degree subject must be Physics or a closely-related area.

French applicants must have a good level of English at IELTS 6.0 or equivalent ability. An English certificate is preferred.

## **Application procedure**

Send your CV to Prof. Barry Garraway, [b.m.garraway@sussex.ac.uk](mailto:b.m.garraway@sussex.ac.uk).

Include a statement explaining your suitability for the project, the names of two referees, and the transcripts of marks obtained for your Bachelor and Master's degrees.

Send a copy of your application to Prof Carlos Garrido Alzar at [carlos.garrido@obspm.fr](mailto:carlos.garrido@obspm.fr) .

Preliminary enquiries to Professors Garraway and Garrido Alzar are welcome.

### **Timetable**

Deadline for applications is 31 July 2015. Early application is strongly advised because the appointment will be made as soon as a suitable candidate is found.

PhD registration at Sussex is 17 September 2015. The first maintenance bursary payment will be made 01 October 2015.

### **Further information**

An additional resource of £8940 is available over the four-year period for travel, conference attendance, a laptop, and other costs.

Details of the AMO research group at Sussex are here: <http://www.sussex.ac.uk/amo/>

### **Contact details**

Prof. Garraway's profile and contact details can be found here:

<http://www.sussex.ac.uk/profiles/25959>.

Prof. Garrido Alzar's profile can be found on [http://syrte.obspm.fr/Web\\_OnACIS/index.html](http://syrte.obspm.fr/Web_OnACIS/index.html)