

**THE DEPARTMENT OF PHYSICS,  
UNIVERSITY OF OXFORD  
AND ST HUGH'S COLLEGE, OXFORD**

**ELIZABETH WORDSWORTH CAREER DEVELOPMENT FELLOWSHIP IN  
ATMOSPHERIC PHYSICS**

The Department of Physics, University of Oxford, and St Hugh's College, Oxford propose to appoint to the Elizabeth Wordsworth Career Development Fellowship in Physics. The post is immediately available and is a fixed-term 3 year position intended for an individual who has recently completed a doctorate or is at an early stage in their academic career. The postholder will be expected to carry out research of international standing, and to undertake undergraduate teaching at St Hugh's during term-time.

The successful applicant will become a member of the Earth Observation Data Group (EODG)<sup>1</sup> within the sub-Department of Atmospheric, Oceanic and Planetary Physics. The principal focus of EODG is the retrieval of atmospheric properties (e.g. temperature, pressure, trace gas concentrations, aerosol and cloud properties) from data gathered by Earth Observing satellites. The scientific aims of the post are to investigate radiative transfer modelling and to develop retrieval algorithms to determine atmospheric and surface parameters from the Infrared Atmospheric Sounding Interferometer (IASI) flying on MetOP. IASI has been successfully making measurements since launch in 2006, and two further versions of the instrument are due for launch in 2010 and 2015. Computer code exists within EODG to aid algorithm development, including in-house line-by line code – The Reference Forward Model.<sup>2</sup> The post is partly sponsored by the National Centre for Earth Observation, and the successful applicant will be expected to present their results at national and international meetings as well as in peer-reviewed publications.

At St Hugh's the postholder will be expected to teach Physics undergraduates for up to three hours per week during term as well as to assist with the undergraduate programme.

Ideally, applicants should have a doctorate in atmospheric science and have good computer skills (knowledge of IDL, FORTRAN or a related high-level language would be advantageous). The graduate we are seeking would have experience in infrared radiative transfer. Teaching experience would be helpful but is not essential.

The successful applicant will be elected to a Career Development Fellowship in St Hugh's College. The Fellow will receive a stipend of £6,000 per annum, in addition to the salary for their postdoctoral appointment. The total stipend of the Fellowship and postdoctoral appointment is therefore likely to be at Grade 7 of the University's payment structure and is likely to be approximately £31,840 per annum.

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<sup>1</sup> <http://www.atm.ox.ac.uk/group/eodg/index.html>

<sup>2</sup> <http://www.atm.ox.ac.uk/RFM/>

## **The Department of Physics**

The Physics Department of the University of Oxford is one of the largest in the United Kingdom, and has a lively and active programme in research which was awarded the highest rating of 5\* in both the 1996 and 2001 Research Assessment Exercises. The Department has over 80 members of academic staff (Professors, Readers and Lecturers) whose work is supported by about 130 technical and secretarial staff. Much of the research is performed by the 170 post-doctoral staff and engineers, who work closely with over 200 students studying for their post-graduate degrees. Current research covers a wide range of Physics from atom trapping, 2-dimensional electron gases and quantum computing to Martian atmospheres, W's, Z's and black holes. This work attracts substantial funding from research councils, industry, and the European Commission. The Physics Department is a member of the Mathematical, Physical and Life Sciences Division of the University of Oxford.

For more information, see <http://www.physics.ox.ac.uk/>

## **St Hugh's College**

St Hugh's College was founded in 1886 as a women's college and became fully mixed in 1986. The College has some 400 undergraduates and around 200 graduates, a fellowship of 50, 30 college lecturers and a non-academic staff of 90. From its beautiful site in North Oxford, St Hugh's promotes a thriving culture of research and intellectual engagement.

For more information, see [www.st-hughs.ox.ac.uk](http://www.st-hughs.ox.ac.uk)

## **Terms of Appointment**

The duties of the Fellow will be: to carry out research of international standing; to offer up to three hours teaching each week during term for the College and Department jointly (in particular, the College requires teaching in Mathematics for first-year undergraduate physicists); to assist in directing studies, admissions and pastoral care of undergraduates.

The Fellow will receive a stipend of £6,000 per annum, in addition to the salary for their postdoctoral appointment. The total stipend of the Fellowship and postdoctoral appointment is therefore likely to be at Grade 7 of the University's payment structure and is likely to be approximately £31,840 per annum. The postholder will have the option of becoming or remaining a member of the Universities Superannuation Scheme (USS), a contributory scheme to which members pay 6.35% of their annual salary.

There will be an initial probationary period of one year, during which the appointment may be terminated by one month's notice on either side. The post will be renewed for a further two years provided that there is evidence of satisfactory progress in research and teaching.

A Career Development Fellow of St Hugh's College is entitled to free meals at common table when the College kitchens are open. The College has a Higher Studies Fund to which Fellows may apply for grants towards offsetting research expenses. The Fellow will not be a member of the College's Governing Body, but will be a member of Education Committee.

The Fellow will work with an academic mentor in St Hugh's College, and will also be given the opportunity to undertake the University's Postgraduate Diploma in Teaching and Learning in H.E.

All appointments are subject to the relevant provisions of the *Statutes, Decrees and Regulations* of the University; copies of the relevant extracts are available on request.

### **Selection Procedure**

Applications for this post will be considered by a selection committee containing representatives from both St Hugh's College and the Department of Physics. The selection committee is responsible for conducting all aspects of the recruitment and selection process; it does not, however, have the authority to make the final decision as to who should be appointed. The final decision will be made by the Department of Physics and the Governing Body of St Hugh's College on the basis of a recommendation made by the selection committee. No offer of appointment will be valid, therefore, until and unless the recommendation has been approved by both the Department and the Governing Body, and a formal contractual offer has been made. The appointment will be subject to satisfactory completion of a medical questionnaire, and provision of proof of the right to work in the UK.

The formal selection criteria for the post are as follows:

1. Evidence of ability to produce work of international standing within the candidate's field of research.
2. Evidence of ability to teach undergraduate students at the highest level.
3. The candidate should have already received the degree of D.Phil. or equivalent. The candidate should not have accumulated more than seven years in full-time graduate study or research, except in exceptional circumstances.

The selection committee will apply these criteria bearing in mind the stage reached in a candidate's career.

The qualities that we are therefore seeking include:

1. The ability to bring advanced research projects to fruition; excellent presentation skills; the ability to contribute to a research community.
2. Expertise in undergraduate teaching.

3. Sympathy for the nature and aims of St Hugh's College and the University of Oxford and willingness to participate in the life of the College.

### **Application Procedure**

One copy of the application, in writing or by email, should be sent to the Senior Tutor, St Hugh's College, Oxford OX2 6LE (lizzy.emerson@st-hughs.ox.ac.uk), including a covering letter, full *curriculum vitae*, list of principal publications (where applicable), a brief account of teaching experience, and the names and addresses of three referees.

Candidates are also asked to complete an equal opportunities form, available from [http://www.sthughs.ox.ac.uk/assets/File/PDF/Equal\\_Opps\\_Form.pdf](http://www.sthughs.ox.ac.uk/assets/File/PDF/Equal_Opps_Form.pdf) and return it to the Principal's Secretary, by post to St Hugh's College, or by email to [catherine.barton@st-hughs.ox.ac.uk](mailto:catherine.barton@st-hughs.ox.ac.uk).

These forms are used for monitoring purposes and will not be seen by any member of the selection committee.

Applicants should ask their referees to write directly to the Senior Tutor, St Hugh's College by the closing date.

### **Timetable**

The closing date for applications, and the last date for receipt of references direct from referees, is **5 December 2008**

Candidates invited for interview will be asked to give a short research presentation at the time of interview. Further details will be sent to shortlisted candidates.

All reasonable interview expenses will be reimbursed.

### **Equal Opportunities**

The policy and practice of St Hugh's College, University of Oxford require that entry into employment with the College and progression within employment shall be determined only by personal merit and the application criteria which are related to the duties of each particular post. Subject to statutory provisions, no applicant or member of staff will be treated less favourably than another because of his or her gender, marital or civil partnership status, sexual orientation, religion or belief, racial group, age or disability. In all cases, ability to do the job will be the primary consideration.

Queries about this post should be addressed to either Dr R.G. Grainger (r.grainger@physics.ox.ac.uk) or the Senior Tutor of St Hugh's College, Dr Lizzy Emerson ([lizzy.emerson@st-hughs.ox.ac.uk](mailto:lizzy.emerson@st-hughs.ox.ac.uk)).