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**Faculty of Technology**

**Institute of Cosmology and Gravitation**

**RESEARCH FELLOW IN INFLATIONARY COSMOLOGY**

**ZZ004016**

**Information for Candidates**

**THE POST**

Please see the attached job description and person specification.

**TERMS OF APPOINTMENT**

Full-time

Fixed term

Salary is in the range from £35,845 to £39,152 and progress to the top of the scale is by annual increments payable on 1 September each year. Salary is paid into a bank or building society monthly in arrears.

Working hours are normally from 8.30 a.m. to 5.15 p.m. Monday to Thursday and 8.30 a.m. to 4.15 p.m. Friday with one hour and ten minutes for lunch. As this post is research based, working hours will vary depending on the needs of the project so a flexible approach is required. Specific working hours will be agreed once an appointment has been made. Overtime is not normally payable but time off in lieu may be given.

Annual leave entitlement is 35 working days in a full leave year. The leave year commences on 1 October and staff starting and leaving during that period accrue leave on a pro-rata basis. In addition, the University is normally closed from Christmas Eve until New Year’s Day inclusive and on bank holidays.

The Appointee will be entitled to join the Local Government Pension Scheme. The scheme's provisions include a final salary based, index-linked pension with an option to exchange some pension for a lump sum on retirement together with dependants’ benefits. Contributions by the employee are subject to tax relief.

There is a probationary period of six months during which new staff are expected to demonstrate their suitability for the post.

It is a condition of the appointment for the proper performance of the duties of the post that the appointee will take up residence at a location such that they are able to fulfil the full range of their contractual duties. This residential requirement will be expected to be fulfilled within twelve months of taking up the appointment. The University has a scheme of financial assistance towards the cost of relocation, details of which can be found on the University website:

<http://www.port.ac.uk/departments/services/humanresources/recruitmentandselection/informationforapplicants/removalandseparationguidelines>

There is a comprehensive sickness and maternity benefits scheme.

**All interview applicants will be required to bring their passport or full birth certificate and any other 'Right to Work' information to interview where it will be copied and verified.** The successful applicant will not be able to start work until their right to work documentation has been verified.

Please note if you are the successful candidate once the verbal offer of employment has been made and accepted, references will be immediately requested. It is the University’s policy that all employment covering the past three years is referenced. A minimum of two references is required to cover this three-year period of employment or study (where there has been no employment). One of your referees must be your current or most recent employer.

The successful candidate will need to bring documentary evidence of their qualifications to Human Resources on taking up their appointment.

If the position has a requirement for Disclosure and Barring Service check (DBS) or Non-Police Personnel Vetting (NPPV), this will be stated in the advert. Further information will be provided once the selection process has been completed.

All applications must be submitted by 23:59 (UK time) on the closing date published.



**UNIVERSITY OF PORTSMOUTH – RECRUITMENT PAPERWORK**

1. **JOB DESCRIPTION**

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| **Job Title:** | Research Fellow |
| **Grade:** | 7 |
| **Faculty/Centre:** | Faculty of Technology |
| **Department/Service:**  **Location:** | Institute of Cosmology and Gravitation  Dennis Sciama Building |
| **Position Reference No:** | ZZ004016 |
| **Responsible to:** | Prof David Wands |
| **Responsible for:** | N/A |
| **Effective date of job description:** | August 2020 |

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| **Purpose of Job:** |
| To undertake research at international level in cosmology and astrophysics.  To work autonomously, and in collaboration with other researchers at the University of Portsmouth and under the guidance of the project leader, to carry out research projects in inflationary cosmology. Responsible for regularly managing elements of the project in line with the project terms of reference. |

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| **Key Responsibilities:** |
| 1. To help manage and deliver the goals of the STFC grant project on ‘Primordial perturbations from inflation.’ 2. To publish research work in refereed journals and to assist in disseminating the results on the worldwide web, and at seminars, conferences or other such activities. 3. To participate fully in the research activities of the funding grant and the Institute, including seminars and discussion meetings. 4. Provide academic leadership by coordinating the work of others to ensure that research and/or knowledge exchange projects are delivered effectively and to time. 5. To promote the standing of the Institute and the research area, via research publications, seminar and conference talks, visits and attendance of meetings, public outreach activities. 6. To assist at a limited level (with a maximum of 6 hours per week), when called upon, in the administration, management and teaching (undergraduate tutoring and PhD research lectures) of the Institute. |

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| **Working Relationships (key individuals the job holder would be working with):** |
| ICG academic staff,  ICG Directors,  other ICG research and support staff |

1. **PERSON SPECIFICATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Attributes** | **Rating** | **Source** |
| **1.** | **Specific Knowledge & Experience** |  |  |
| 1.1 | Excellent research-level knowledge of inflationary cosmology and the models for the origin of cosmic structure | E | AF,S |
| 1.2 | Knowledge of relativistic perturbation theory | E | AF,S |
| 1.3 | Experience with numerical and computational tools such as Einstein-Boltzmann codes, Monte Carlo Markov Chains, Python and/or Mathematica notebooks | E | AF, S |
| 1.4 | Knowledge and experience of stochastic dynamics, primordial black holes, gravitational waves and/or Bayesian model selection | D | AF,S |
| 1.5 | Refereed journal publications either published or in the process of being published | E | AF,S |
| 1.6 | Single-author or leading-author publications; strong citation impact; talks at international conferences | D | AF,S |
| 1.7 | Experience of mentoring and/or coordinating the work of others | D | AF,S |
| **2.** | **Skills & Abilities** |  |  |
| 2.1 | Excellent skills in numerical and mathematical modelling | E | AF,S |
| 2.2 | Oral and written communication skills | E | AF,S |
| 2.3 | Seminar / conference presentations | E | AF,S |
| 2.4 | Writing papers for publication | E | AF,S |
| **3.** | **Qualifications, Education & Training** |  |  |
| 3.1 | PhD in Physics, Astrophysics or Mathematics (or awarded within 3 months of start) | E | AF,S |
| **4.** | **Other Requirements** |  |  |
| 4.1 | Creative and self-motivated | E | AF,S |
| 4.2 | Able to work autonomously and in a team | E | AF,S |
| 4.3 | Willing to meet deadlines | E | AF,S |
| 4.4 | Willing to travel in the UK and overseas for research | E | AF,S |
| 4.5 | Ability to work in international collaborations | D | AF,S |

**Legend**

Rating of attribute: E = essential; D = desirable

Source of evidence: AF = Application Form; S = Selection Programme (including Interview, Test, Presentation)

**JOB HAZARD IDENTIFICATION FORM**

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| --- | --- | --- | --- |
| **Please tick box(s) if any of the below are likely to be encountered in this role. This is in order to identify potential job related hazards and minimise associated health effects as far as possible. Please use the** [**Job Hazard Information**](http://www.port.ac.uk/departments/services/humanresources/occupationalhealthservice/jobhazardinformation/filetodownload,164407,en.doc) **document in order to do this.** | | | |
| 1. International travel/Fieldwork   To attend conferences and collaboration meetings. | X | 13. Substances to which COSHH regulations apply (including microorganisms, animal allergens, wood dust, chemicals, skin sensitizers and irritants) |  |
| 1. Manual Handling (of loads/people) |  | 14. Working at height |  |
| 1. Human tissue/body fluids (e.g. Healthcare workers, First Aiders, Nursery workers, Laboratory workers) |  | 15. Working with sewage, drains, river or canal water |  |
| 1. Genetically modified Organisms |  | 16. Confined spaces |  |
| 1. Noise > 80 DbA |  | 17. Vibrating tools |  |
| 1. Night Working   (between 2200 hrs and 0600 hrs) |  | 18. Diving |  |
| 1. Display screen equipment (including lone working) | X | 19. Compressed gases |  |
| 1. Repetitive tasks (e.g. pipette use etc.) |  | 20. Small print/colour coding |  |
| 1. Ionising radiation/non-ionising radiation/lasers/UV radiation | | 21. Contaminated soil/bioaerosols |  |
| 10. Asbestos and lead | | 22. Nanomaterials | |
| 11. Driving on University business (mini (over 9 seats) van,-bus, forklift truck, drones only | | 23. Workplace stressors (e.g. workload, relationships, job role etc.)  X | |
| 12. Food handling | | 24. Other (please specify) | |

**Completed by Line Manager/Supervisor:**

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| **Name (block capitals)** | Professor David Wands |
| **Date** | 31st August 2020 |
| **Extension number** | 3115 |

Managers should use this form and the information contained in it during induction of new staff to identify any training needs or requirement for referral to Occupational Health (OH).

Should any of this associated information be unavailable please contact OH (Tel: 023 9284 3187) so that appropriate advice can be given.