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| Last updated: | 13 December 2017 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow** | | |
| Academic Unit/Service: | Mathematics | | |
| Faculty: | Social Human and Mathematical Sciences | | |
| Career pathway: | ERE | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Principal Investigator and the Head of Mathematics | | |
| Posts responsible for: | none | | |
| Post base: | Office-based | | |

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| Job purpose |
| To undertake research on “Gravitational Waves from Extreme Mass Ratio Inspirals” – a project funded by an STFC consolidated grant. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | Develop and carry out a research programme overseen by the award holder. | 70% |
|  | Regularly disseminate findings by taking the lead in preparing publication materials for referred journals, presenting results at conferences, or exhibiting work at other appropriate events. | 15% |
|  | Participate in weekly meetings of the Southampton Gravity group; participate in group seminars; collaborate with research students and other members of the group. | 5% |
|  | Carry out administrative tasks associated with the research project, for example risk assessment of research activities, organisation of project meetings and documentation. Implement procedures required to ensure accurate and timely formal reporting and financial control. | 5% |
|  | Carry out occasional undergraduate supervision, demonstrating or lecturing duties within own area of expertise, under the direct guidance of a member of departmental academic staff. | 5% |

| Internal and external relationships |
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| Members of the relevant international scientific community: for collaboration and dissemination of results.  *Applications for Research Fellow positions will be considered from candidates who are working towards or nearing completion of a relevant PhD qualification. The title of Research Fellow will be applied upon successful completion of the PhD. Prior to the qualification being awarded the title of* ***Senior Research Assistant*** *will be given.* |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD (or equivalent professional qualifications and experience in Physics, Mathematics, or a related discipline.  Research track record in at least one of the following fields: Physics of classical black holes, general-relativistic dynamics, gravitational waves, numerical relativity, gravitational radiation reaction.  Familiarity with computer-algebra software such as Mathematic | Research track record in more than one of these fields.  Experience in numerical methods  Knowledge in classical dynamics | CV,  publications, references, interview |
| Planning and organising | Ability to conduct research both independently and in collaboration with peers  Ability to organise own research activities to deadline and quality standards |  | CV,  publications, references, interview |
| Problem solving and initiative | Ability to develop understanding of complex problems and apply in depth knowledge to address them |  | CV,  publications, references, interview |
| Management and teamwork | Experience with collaborative work |  | CV,  publications, references, interview |
| Communicating and influencing | Good communication skills, both written and oral; ability to write up research results for publication in leading peer-reviewed journals |  | CV,  publications, references, interview |
| Other skills and behaviours |  | Positive attitude to colleagues and students | References, interview |
| Special requirements | Able to attend national and international conferences for the purpose of disseminating research results. |  | Interview |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally**  (<30% of time) | **Frequently**  (30-60% of time) | **Constantly**  (> 60% of time) |
| Outside work |  |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: |  |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) |  |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers) |  |  |  |
| **PHYSICAL ABILITIES** | | | |
| Load manual handling |  |  |  |
| Repetitive crouching/kneeling/stooping |  |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods |  |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) |  |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height |  |  |  |
| Repetitive reaching at shoulder height |  |  |  |
| Repetitive reaching above shoulder height |  |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public |  |  |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |