

Job Description

Post title and post number	Computer Officer (Particle Physics Group) - 52051
Organisation advertising Description	School of Physics and Astronomy
Post number	52051
Full-time/Part-time	Full-time
Duration of post	24 months
Post is open to:	Internal and external candidates
Grade	6
Salary	Starting salary is normally in the range £24,766 to £27,047. With potential progression once in post to £30,424 a year.
Additional information	For informal enquiries please contact: Professor Paul Newman Email: P.R.Newman@bham.ac.uk
Terms and conditions	Administrative and Other Related
Closing date	23 May 2013

Job Summary

To contribute to the achievement of the research group's strategy by administering distributed computing hardware and software and also to administer local computing farms, personal computers and infrastructure.

Main Duties

- To provide primary system administration and support to the Birmingham 'Tier 2' site in the GridPP world-wide distributed computing network, including the development of the site and its middleware. This will include system updates, problem solving as well as monitoring and ensuring efficient functioning of the hardware.

- To provide new developments and bug fixing for the 'Ganga' distributed computing interface as used by the ATLAS experiment at the Large Hadron Collider.
- To provide expert feedback and problem-solving to users as part of the ATLAS Distributed Analysis Team.
- To present status reports at UK GridPP meetings.
- To provide support to the Birmingham particle physics group internal computing infrastructure, in cooperation with the senior systems administrator. This to include monitoring and maintenance of the local 'Tier 3' farm, commissioning of new hardware and administering current hardware.
- Contribution to general system development and management, including local linux desktop administration.

Person Specification

Essential criteria

- Physics or Computer Science first degree.
- Thorough understanding of Linux concepts and implementation.
- Strong understanding and experience of computer networking, in particular TCP/IP protocols.
- Strong programming experience in object-oriented languages (ideally C++ and Python).
- Ability to write clear documentation on facilities and to provide taught classes for 1st-time users.
- Good time and priority management.
- Good problem-solving, presentation and inter-personal skills.

Desirable criteria

- Higher degree in Physics or Computer Science.
- Prior experience with GridPP systems, both general and experiment specific.
- Experience in planning, installing and customising RedHat and Fedora Linux systems on individual desktops and, via automated procedures, on farms with hundreds of processors.
- Working knowledge of PC computer hardware and fault diagnosis.
- Experience in web design and web server configuration.
- Experience of user analysis needs in High Energy Physics research

Planning and Organising

- Coordinate overall particle physics computing workload with senior systems administrator.
- Take full responsibility for the delivery of large fractions of the programme, sometimes including managing contributions from small teams of PhD. students and postdoctoral RAs.
- Prioritise tasks to minimise user impact and maximise system efficiency over short and long timescales.

Decision Making Skills

- Contribute strongly, in consultation with senior systems administrator and other senior colleagues, to decisions on all aspects of system hardware and software development in the particle physics group.

Internal/External Relationships

- Liaise with senior systems administrator and research-users on all aspects of particle physics computing support in Birmingham.
- Give presentations and interact with experts from other UK universities via national GridPP meetings.
- Provide support to all distributed computing users in the international ATLAS collaboration.