

JOB DESCRIPTION
A3261

Job Title: Research Associate (for particle physics distributed computing at Lancaster)	Present Grade: 6
Department/College: Physics Department	
Directly responsible to: Prof R W L Jones	
Supervisory responsibility for: -N/A	
<p><u>Other contacts</u> Internal: The Lancaster High Energy Physics Group, ISS staff External: GridPP and ATLAS Distributed Computing team members</p>	

Major Duties:

This post combines the support of a large computing and data-access farm with many processors and also a considerable storage resource running distributed computing middleware (over 9000 cores and ~4PB disk). The facility is integrating with a shared High End Computing (HEC) facility serving users across the campus. The post will support the use of the facility by experimental particle physics users, both in Lancaster and worldwide; and a broad range of academic users in Lancaster of the HEC. The post will undertake research into prototypes using these technologies to assess the options, and will communicate the findings to colleagues in the UK and worldwide, and through conferences and papers. The post will work with the HEP group system administrator, an existing support post and with central staff running the HEC. There will also be interaction with similar posts at the other sites as part of the GridPP project, which is UK-wide. The post will be expected to contribute to and expand the research of the GridPP collaboration.

The post will

- Monitor and maintain the distributed computing hardware run by the Lancaster HEP group;
- Install and validate the required operating systems and middleware for distributed computing operations;
- Ensure that the available capacity and actual usage is correctly reported through distributed computing publishing systems;
- Attend technical meetings, GridPP collaboration meetings and some external meetings. This may require the occasional international travel.
- Help with the selection of the correct technical solutions to allow the development of the facility, and play a part in the vendor selection.
- Present independent research at national and international meetings.
- Convey technical information to colleagues at national and international meetings.
- Write research publications for international conferences and/or journals.
- Lead and develop research collaborations with colleagues outside their immediate research team and department.
- Work with colleagues to initiate and develop links with industry.
- Contribute to knowledge exchanges with industry.
- Engage in internal department administration/committees
- With colleagues, shape and direct computing resources and strategic plan for HEC/Distributed computing.
- Coordinate project teams and assign timescales.
- Prioritise and direct spending for computing resources.