

SKA ORGANISATION
BASED JODRELL BANK, UNITED KINGDOM
Head of Scientific Operations Planning
Application deadline: 30th June 2015

Competitive Salary and Flexible Benefits

Job Title: Head of Scientific Operations Planning

Reference: HSP/01

Reports To: Director of Operations Planning

Location: Jodrell Bank Observatory, Cheshire, UK

Closing Date for applications: Closing date for receipt of completed applications is Tuesday 30th June 2015. For details of how to apply please see below.

Submission of applications: Email to jobs@skatelescope.org

Shortlisting to be completed by 10th July 2015

Interviews to take place in week commencing 27th July 2015

Organisation Background

The Square Kilometre Array (SKA) is a global project to build a multi-purpose radio telescope that will play a major role in answering key questions in modern astrophysics and cosmology. It will be one of a small number of cornerstone observatories around the world that will provide astrophysicists and cosmologists with a transformational view of the Universe. The SKA will be constructed in two distinct phases. The major science goals for the first phase, SKA1, will be to study the history and role of neutral Hydrogen in the Universe from the dark ages to the present-day, and to employ pulsars as probes of fundamental physics.

Since 2008, the global radio astronomy community has been engaged in the development of the SKA as a major part of the 'Preparatory' phase of the project. The Preparatory phase ended in December 2011 and, following a number of major changes, the international SKA project has now progressed to the 'Pre-Construction' phase (2012-15) with the establishment of a new legal entity, the SKA Organisation, on 14 December 2011. Eleven countries are now participating in the project, with others engaged in discussions concerning possible membership. The SKA Organisation is now headquartered in a purpose-built building at Jodrell Bank Observatory in Cheshire, UK.

General Description

The Office of the SKA Organisation ("SKA Office") leads the SKA system design and oversees the supporting developments and designs within the globally-distributed SKA design consortia. To accomplish this goal the SKA Office employs highly-qualified scientists, project managers, system

engineers and domain specialists. Work packages for the design of the major SKA subsystems (Elements) are contracted on a small number of work package consortia who are responsible for the management, execution and delivery of the work packages. The technical strategy and philosophy of the project are strongly based on system engineering principles.

SKA Organisation is overseen by a Board of Directors comprising of two Directors from each of the member nations. The Board maintains a close relationship with the work of the SKA Office: it meets 3 times a year and there is a frequent need for the provision of papers and other communications on a range of issues, both at the time of Board meetings and out of session.

The Role

The first phase of the SKA is scheduled to become fully operational in 2023. The operation of the SKA Observatory is currently being planned and we are seeking an individual to join a small planning team. The role of the Head of Scientific Operations Planning will be to assist with planning the full cycle of scientific operations, from the submission of proposals through to the delivery of data products to users. We seek an individual experienced with observatory operations to ensure that operational constraints and requirements are incorporated in the design of SKA1.

Key Duties, Accountabilities and Responsibilities

Under the direction of the Director of Operations Planning, the postholder will:

- Support the Director of Operations Planning in the generation of the top-level requirements.
- Support Work Package Consortia (WPC) as appropriate, and Project Managers and System Engineers in the SKA Office, to provide guidance on the interpretation and implementation of the top-level requirements from the scientific operations perspective.
- Provide operations performance analysis as required.
- Document the results of investigations, planning and production of requirements for all aspects of SKA operations. Provide updates and reports as necessary.
- Engage in design reviews as required.
- Travel, as required, to fulfil these duties.
- Undertake any other reasonable duties as directed.

Mandatory Qualifications, Experience and Knowledge:

- Bachelor's degree in astronomy or related field, or equivalent experience.
- Significant experience with the practical, day-to-day scientific operation of an astronomical observatory.
- Analytical skills. Experience with analysis/simulation, design tools and programming languages related to operations analysis.
- Experience in the generation of written reports for submission to oversight bodies.
- Experience in presenting work orally at meetings and other fora.
- Good IT skills and a familiarity with MS Office packages or equivalent.
- Good English oral and written communication skills and the ability to influence people in widely differing parts of a complex organisation.
- Strong ability to work with staff and teams from diverse cultural backgrounds.
- Willingness to present the SKA Office in international and other fora and willingness to travel to SKA consortium locations and centres.

Desirable Qualifications, Experience and Knowledge:

- Experience with scientific operation of a radio astronomy facility.
- A demonstrable record of research using astronomical observatories, including the full cycle of applying for time through to refereed publications.
- Familiarity with radio astronomy or a closely-allied field.
- Experience of overseeing software development projects.
- Experience of overseeing and supporting observatory time allocation process.
- Experience of overseeing and implementing observatory upgrade projects.

For more information on the SKA project visit <http://www.skatelescope.org>. The SKA Organisation offers a competitive salary, a generous company pension scheme and a flexible benefits package. The successful applicant's workplace will be located at the SKA Office's headquarters in Jodrell Bank Observatory.

How to apply

Please send a CV and covering letter, including details of your current remuneration, to jobs@skatelescope.org, quoting reference HSP/01. Applications should include a summary of your project experience, **detailing how you meet the essential and desirable knowledge, skills and experience criteria**, and the names of at least three professional referees, one of whom must be your current employer (or most recent employer if not currently working). Closing date for receipt of applications is 30th June 2015.

When applying please state where you saw the vacancy advertised.

Equal Opportunities Statement:

SKA Organisation is committed to being an equal opportunities employer. Our aim is to recruit and retain the most talented individuals, regardless of gender, race, disability, age, sexual orientation, religion or nationality.

At all stages of the recruitment process and beyond, we strive to treat applicants and employees with a high standard of care, honesty and politeness.

Women have traditionally been under-represented in the fields of science and engineering; SKA Organisation welcomes and encourages female applicants.

Where applicants with a disability need facilities or adjustments to enable them to participate in the recruitment process, these will be provided. If you need equipment or adjustments to enable you to complete your application and/or attend an interview then please let us know.