

# TWO POSTDOCTORAL POSITIONS

## MEERKAT FORNAX SURVEY

(Cagliari Astronomical Observatory, INAF, Italy)

*Deadline 30 November 2016*

### **Project**

The successful candidates will join the [ERC-funded](#) research group lead by Paolo Serra at INAF. This group is leading the first science of the [MeerKAT Fornax Survey](#) – a large survey on the SKA precursor MeerKAT. The two postdoctoral researchers will join the survey team and contribute to all aspects of the survey – observing, data processing, data analysis in combination with ancillary data and simulations, publication of the results.

### **Job description**

The main role of the successful candidates is to lead the first science to come out the [MeerKAT Fornax Survey](#). They will contribute to: defining the observing strategy; taking, processing and analysing the MeerKAT radio interferometric data; presenting first results at international conferences; and leading the first publications of the project. These activities will be carried out in close collaboration with the international Fornax team and with staff at the SKA South Africa office. The focus of the first science will be on: the effect of the environment on the resolved HI and star formation properties of galaxies in Fornax; the HI mass function; and the detection and imaging of HI in the intra-cluster medium. The successful candidates will take the lead in these areas. They will also make optimal use of the many ancillary, multi-wavelength datasets (e.g., ESO/VST, Herschel, ALMA) and simulations which are available as part of this collaboration, and will contribute strongly to all other activities of the team.

### **Requirements**

A master's degree in physics or astrophysics followed by at least three years of relevant research experience (including experience as a Ph.D. student or postdoctoral researcher); and/or a Ph.D. in astrophysics or a closely related discipline.

N.B.: The starting date may depend on the country where the above qualifications were obtained and on the nationality of the successful candidate. For further information contact [fornax@oa-cagliari.inaf.it](mailto:fornax@oa-cagliari.inaf.it).

### **Selection criteria**

- Experience with radio interferometry and/or research in extragalactic astrophysics at research institutes and universities.
- Motivations and skills to take a leading role within the Fornax project.
- The ability to work efficiently within a team and to obtain results in an independent way.
- A strong track record of peer-reviewed publications.
- A record of oral presentations at international conferences.
- Successful applications for observing time and for funding grants.
- Good programming skills and a good level of English language (oral and written).

## **Content of the applications**

The following documents should be included in the applications (preferably as PDF files) and will be used for their evaluation:

- Curriculum vitae
- Peer-reviewed publication list
- Description of main research achievements and of how the candidate plans to contribute to the MeerKAT Fornax Survey (one A4 page).
- Three reference letters (see below).

## **Application procedure and deadline**

Applications must be sent via email to [fornax@oa-cagliari.inaf.it](mailto:fornax@oa-cagliari.inaf.it). The application deadline is **30 November 2016**. Applications must include the aforementioned documents: 1) curriculum vitae, which should include elements relevant for the selection criteria; 2) list of peer-reviewed publications; 3) one-page description of the candidate's main research achievements and planned contribution to the MeerKAT Fornax Survey. Candidates must arrange for three recommendation letters to be sent directly by the referees to [fornax@oa-cagliari.inaf.it](mailto:fornax@oa-cagliari.inaf.it) by **30 November 2016**.

Applications and/or reference letters received after the deadline will not be considered.

## **Evaluation of the applications and job interviews**

All applications will be evaluated by a selection panel based on the aforementioned criteria. The panel will consider the overall quality of the applications, the scientific impact of the candidates' research and its relevance for the Fornax project.

Candidates will be informed of the composition of the selection panel prior to the evaluation of their applications. The person responsible for the selection procedure is Paolo Serra, with support by the administrative staff Tiziana Coiana (INAF Cagliari).

Job interviews may be required as part of the selection. If so, they will be carried out remotely through Skype. During the interviews, candidates will be asked to elaborate on the content of their application and on the selection criteria for the positions.

## **Duration and location of the appointment**

Both positions have a duration of 3 years. The appointed postdoctoral researchers will be based at the Cagliari Astronomical Observatory, INAF, Italy, where they will liaise with the young and vibrant astrophysics group as well as with astronomers at other INAF observatories and Italian universities. They will make frequent and extended visits to the SKA South Africa office with the aim to strengthen the collaboration between the Fornax team and the telescope staff.

## **Salary**

The successful candidates will be hired on a term contract as 3<sup>rd</sup> level researchers (*Ricercatore III Livello*). The gross yearly salary is €51,258 (including all tax, pension and welfare deductions, as well as a severance pay), and the net yearly salary is approximately €22,000.

## **Funding sources**

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