

Joint Postdoctoral fellowship on Cosmology and Radio astronomy Deadline: 25th February 2021

The joint research center of University of KwaZulu-Natal (UKZN) and National Astronomical Observatory of China (NAOC) invites application for one joint postdoctoral research fellow with emphasis on radio astronomy and cosmology. The successful applicant will work with Prof. Yin-Zhe Ma on the Hydrogen Epoch (HERA; www.reionization.org) of Reionization Array and MeerKAT (science.ska.ac.za/meerkat) radio telescopes. The position is supported by UKZN and NRF/South Africa. He/she will play a major role in analysing HERA and MeerKAT data for cosmology. The research involves developing calibration pipeline for radio interferometry and statistical method for data analysis. These techniques are expected to be highly integrated with HERA and MeerKAT data as well as numerical simulation.

The tenure of the position is 2 years in South Africa. Well-performed postdoc will also be provided another 2 years funding to conduct research in National Astronomical Observatory China (Beijing) and work on Tianlai and Discovering Sky at the Longest wavelength (DSL) projects. The minimal qualification is Ph.D. in astronomy, astrophysics, computational physics or related field completed or expected by effective date. Significant computational skills, parallel programming and data analysis skills are preferred.

DEADLINE: 25th February 2021 (full consideration), although late application is also accepted until the position is filled.

INQUIRY: Please address the inquiry to Yin-Zhe Ma (ma@ukzn.ac.za) or Xuelei Chen (xuelei@cosmology.bao.ac.cn).

SUBMISSION: please submit your CV with publication list, a brief research statement highlighting the qualifications and interests, and 3 letters of reference letters to the email address sa.china.astronomy@gmail.com.

射电天文和宇宙学联合博士后 (截止时间: 2021年2月25日) 南非夸祖鲁纳塔尔大学(UKZN)和国家天文台于 2016 年成立了计算天体物理学联合实验室,用于共同开发和研究以 SKA 为主线的射电天文学。目前联合实验室招聘一名射电天文学和宇宙学领域的博士后加盟。此博士后将与马寅哲教授一起研究HERA (www.reionization.org)和 MeerKAT (science.ska.ac.za/meerkat) 射电望远镜。该职位得到 UKZN 和南非 NRF 经费的支持。主要的工作是分析 HERA 再电离和MeerKAT 宇宙学方面数据,研究将涉及开发用于射电干涉测量的校准程序和用于数据分析的统计方法。这些方法将与 HERA 和 MeerKAT 的数据以及数值模拟高度结合起来。

该职位的任期在南非为2年。工作出色的博士后还将获得另外2年在中国国家天文台进行研究的机会。国台目前进行的主要项目是天籁项目和绕月卫星干涉仪(鸿蒙计划)和SKA。

此工作的最低要求是博士学位,有一定的在射电天文或者宇宙学编程和数据分析的能力。

截止日期: 2021年2月25日;

询问信息: 马寅哲教授 <u>ma@ukzn.ac.za</u> 和陈学雷研究员 <u>xuelei@cosmology.bao.ac.cn;</u>也可加微信联系 "Einstein_Ma" 咨询。

提交申请:请将简历、发表论文目录,研究计划发到 sa.china.astronomy@gmail.com,并安排3位推荐人将推荐信发至同一邮件地址。