



Postdoctoral Research Associate

Early Galaxy Astrophysics

A Postdoctoral Research Associate (PDRA) is sought to work with Michael Murphy at [Swinburne's Centre for Astrophysics & Supercomputing](#) (CAS) on probing the circumgalactic medium at redshifts >4 using quasar absorption lines.

Position & scope:

A full-time appointment, funded by an Australian Research Council grant, can be made for 2 years, with funding available for a 3rd year subject to performance. Part-time options can be explored; enquire before the application deadline. The grant includes a AUD\$15,000 research budget and AUD\$8,000 relocation and start-up fund.

The PDRA will participate in an international collaboration to exploit a recently-completed Gemini Telescope survey of very high redshift quasars. They will lead the analysis and publication of the post-reionization circumgalactic medium using these data and higher resolution follow-up spectra, some of which they will lead the observations for.

Subject to performance, some time may be available for research on high-redshift astrophysics of the PDRA's choosing. Opportunities exist to assist with PhD supervision and public outreach.

Selection criteria:

The successful applicant will have a PhD, or a clear expectation to submit a PhD by the commencement date, in a related field. They will have demonstrated both independent and collaborative research skills and have excellent scientific presentation skills. Preferred applicants will demonstrate an ability to take ownership of a research project, contribute new, important ideas and publish the results quickly. Desirable qualities include observational, data reduction and analysis experience, particularly in optical spectroscopy, and high-level computing skills.

Environment:

CAS is one of Australia's largest research astronomy groups, with over 30 staff/post-docs and 30 PhD students from more than 20 different countries. Swinburne holds an agreement with Caltech guaranteeing up to 20 nights per year on the Keck telescopes for CAS staff (including PDRAs as PI). CAS operates its own GPU-rich supercomputing facility, and a HD 3D "Virtual Reality Theatre". We have a lively research culture with weekly discussion groups and international speakers comprise half of our colloquia. The campus is located in the cosmopolitan, urban area of Hawthorn, and Melbourne is one of the "world's most liveable cities".

Swinburne is a 2012 Federally-recognised "Employer of Choice for Women". Swinburne encourages applications from Indigenous people, people from culturally and linguistically diverse backgrounds, people with disabilities, women and men.

Remuneration includes AUD\$70,174–75,289 salary plus 17% superannuation, standard 4-week annual leave plus sick leave (including carer leave), maternity (& partner) leave.

Applications:

The application deadline is the 20th January, 2013. Applications should be e-mailed directly to Michael Murphy and must include a CV, publication list, 1 page directly addressing the above selection criteria, and 1 page highlighting other research interests, past, present & future. Applicants should ensure that at least 2 referees e-mail reference letters to Michael Murphy by the application deadline. *Applicants are encouraged to request further information directly from Michael Murphy before the application deadline.*

See corresponding AAS Job Register ad at
http://jobregister.aas.org/job_view?JobID=43883

Contact:

Dr. Michael Murphy, Swinburne University of Technology
Telephone: +61 3 9214 58188,
E-mail: mmurphy@swin.edu.au
<http://astronomy.swin.edu.au>

