

Position Title	Research Associate
Classification	Level A
School/Division	School of Physics, Maths and Computing
Centre/Section	Physics
Supervisor Title	Professor
Supervisor Position Number	318622
Position Number	SR

Your work area

The Department of Physics is a research focused department with a strong commitment to quality teaching at both undergraduate and postgraduate levels. While our core business is fundamental research, we have also successfully translated the results of research into the development of new technologies for the benefit of humankind.

The University of Western Australia (UWA) node of the Australian Research Council (ARC) Centre of Excellence in Gravitational Wave Discovery (OzGrav) focuses its research on developing advanced techniques for current and future gravitational wave detectors. We operate the High Optical Power Facility with 80m suspended optical cavities at Gingin Gravity Precinct, an off-campus facility.

UWA offers a vibrant research environment for gravitational wave astronomy. There is a long history of gravitational wave research at UWA. One of the first cryogenic bar detectors Niobe was developed at the UWA during the 1980s.

Reporting structure

Reports to: Professor

Your role

As the appointee, you will conduct research primarily at the Gingin facility on experiments on the control of the large, suspended cavities, assist in the design and operation of the suspended cryogenic silicon optics and related experiments, towards developing techniques for the next generation gravitational wave detectors.

You will assist in supervising undergraduate, Master, and PhD students working on the Gingin experiments. You will participate in proposing and developing new experiments aiming at improving the sensitivity of gravitational wave detectors and work on the design and planning towards an Australian Gravitational Wave detector.

You will work with support and guidance from more senior academic colleagues as is expected to develop their expertise in experimental gravitational wave instrumentation, and with an increasing degree of autonomy.

Your key responsibilities

Provide high-level research at the forefront of gravitational wave physics with emphasis on control and operating the large suspended optical cavities for techniques for current and future gravitational wave detectors.

Prepare research papers for publication in high impact refereed journals.

Present research results at seminars and conferences

Seek additional research funding through grant applications

Contribute to the supervision of Honours, Master and PhD research projects

Other duties as directed

Your specific work capabilities (selection criteria)

PhD in experimental Physics or Engineering

Experience in control systems and optics

Some experience in supervising students

Demonstrated commitment to participating in high quality research evidenced by peer-reviewed journal articles published in respected scholarly journals

Well-developed interpersonal and written and verbal communication skills

Excellent time management and organisational skills

Ability to work independently, show initiative, problem solve and work productively as part of a team

Special requirements (selection criteria)

Current "C" class driver's licence

Travel and work at the off-campus facility at Gingin

Occasional interstate travel may be required

Occasional weekend work

Compliance

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including:

The University's Code of Conduct [Code of Ethics and Code of Conduct](#)

Inclusion and Diversity web.uwa.edu.au/inclusion-diversity

Safety, health and wellbeing [Safety and Health Policy](#)