**ACADEMIC POSITION SUMMARY**

**DEPARTMENT/UNIT:** School of Mathematics and Statistics  
**FACULTY:** Faculty of Science

**POSITION TITLE:** Postdoctoral Research Associate (PhD required)

**LEVEL:** A  
**CLASSIFICATION:** Research Only

**ESSENTIAL FORMAL QUALIFICATIONS:**

- ☑ PhD or equivalent
- ☐ Postgraduate degree
- ☐ Honours degree
- ☐ Other (specify)

**Detail:** PhD in Mathematics (Geometry & Topology)

**PRIMARY ACTIVITIES AND RESPONSIBILITIES:**

The Australian Research Council has funded a research program into "Moduli spaces of geometric structures", through its Discovery Grant scheme, with the Chief Investigator Dr Stephan Tillmann. It is administered by the University of Sydney and is funded for the three year period 2014-2017.

The successful applicant will undertake research in the area of geometric structures on manifolds, using techniques from hyperbolic and projective geometry, triangulations and computational algebraic geometry. Research will focus on developing practical methods to compute moduli spaces of geometric structures on low-dimensional manifolds, and on understanding their global properties.

The successful applicant will participate in all aspects of the project, will present research results at seminars and conferences, and will, as part of the research team, write scholarly papers for publication in academic journals.

**ESSENTIAL SKILLS/TECHNIQUES:**

- Demonstrated ability to carry out high quality research in the areas of geometry and topology.
- Demonstrated creativity, productivity and high level of initiative.
- High level of interpersonal skills, including the ability to work collaboratively with colleagues.
- Good organisational and administrative skills with attention to detail.
- High level of written and verbal communication skills.
- Demonstrated ability to work independently.

**ESSENTIAL EXPERIENCE:**

- Published research as sole author or in collaboration.
- Experience in research record keeping, preparation of research papers and seminars.

**ESSENTIAL OTHER:**

- Demonstrated understanding of the incorporation into University life of the principles of Equal Employment Opportunity and Affirmative Action; and ability to work positively with staff and students from a diverse range of backgrounds.
- Understand your WHS responsibilities and actively ensure the health, safety and wellbeing of yourself and others at work in accordance with your delegated authority, as described in the University’s WHS Policy and Procedures and role responsibilities.

**DESIRABLE:**

- Demonstrated strength in computer programming.