AMSI workshop:
New directions in geometric group theory
The University of Queensland, 14–18 December 2009

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Geometric group theory is a young field that lies at the intersection of algebra, topology, analysis, logic and theoretical computer science. In the 90s, Australia was a hotbed of activity in the field, culminating in a special year in 1996. The proceedings of the major conference from that year are now the well regarded and much cited book *Geometric Group Theory Down Under*.

The goal of the *New Directions* workshop in 2009 was to re-invigorate and raise the profile of the field in Australia, and to examine the influx of new ideas, trends and advances in the recent past.

Australian based researchers, including students, benefitted from exposure to material presented by experts in the field, as well as being able to network with both Australian and international researchers.

The topics covered included: stable commutator length, coarse geometry, generic algorithms in group theory, limit groups and braid groups. These are broad and complex topics, so the goal of the workshop was to introduce them, raise excitement about them, and to initiate future work and Australian-international collaborations.

There were two short courses presented by world-leading experts: Professor Danny Calegari, California Institute of Technology, USA, on 'Stable commutator length', and Professor Graham Niblo, University of Southampton, UK, on 'Coarse geometry: What happens when analysis and geometry collide?'.

Professor Daryl Cooper, University of California, USA, gave a public lecture 'Numbers: From −1 to 2 raised to the power of infinity'. This was presented at the Brisbane City Hall in conjunction with the University of Queensland's *BrisScience* program of public lectures.

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There were 51 participants, including 16 students. The 28 Australian-based participants all expressed the opinion that the workshop had been an excellent forum for forging and maintaining research links both within Australia and internationally.

More information, including abstracts for the talks presented, can be found at the workshop webpage: http://sites.google.com/site/ggtbrisbane.

We, the conference organisers, thank the AustMS sincerely for their generous support of this event.