

## **AMSI/AustMS workshop: Geometry and Analysis**

### **Flinders University**

### **25–27 September 2015**

#### **Organising Committee**

- Dr Yuri Nikolayevsky (La Trobe), [Y.Nikolayevsky@latrobe.edu.au](mailto:Y.Nikolayevsky@latrobe.edu.au) (Chair)
- A/Prof Grant Cairns (La Trobe), [G.Cairns@latrobe.edu.au](mailto:G.Cairns@latrobe.edu.au)
- A/Prof Gerd Schmalz (UNE), [schmalz@une.edu.au](mailto:schmalz@une.edu.au)
- A/Prof Vladimir Ejov (Flinders), [Vladimir.ejov@flinders.edu.au](mailto:Vladimir.ejov@flinders.edu.au)

This workshop was aimed at sharing ideas and discussion of recent results in differential geometry, Lie theory and complex analysis. It covered a wide area of pure mathematics, from Lie groups and algebras to geometry of homogeneous spaces, to complex and CR-geometry and to geometric methods in complex analysis of several variables.

This workshop was the third one in a series of three (so far) workshops in Geometry and Complex Analysis. It ran for three days, from 25 to 27 September 2015, on the Flinders University Tonsley Campus, and was a satellite event of the Australian Mathematical Society Annual Meeting. All five invited speakers and most of the participants also gave presentations in the special sessions of the Meeting.

One of the highlights of the workshop was a series of lectures by the invited speakers. The workshop started with two one-hour lectures of Francine Meylan (Université de Fribourg, Switzerland). Jorge Lauret (Universidad Nacional de Córdoba, Argentina) gave a four-hour mini-course ‘Geometric flows and their solitons on homogeneous spaces’, Jan Slovák (Masaryk University, Czech Republic) gave a two-hour survey talk ‘Subriemannian metrizable of some parabolic geometries’. Dmitri Alekseevsky (IIPT, Russia) gave two talks, on cohomogeneity one manifolds and on conformal geometry and neurogeometry. Australian participants gave a series of one-hour talks including, in particular, talks by Michael Eastwood and by Artem Pulemotov.

The workshop was very well attended. This was, in part, due to the fact that it was a satellite event of the AustMS Annual Meeting, and, in part, thanks to the publicity and advertising: the workshop had been advertised by AMSI, by AustMS, by WMSIG and on its own webpage <http://gygeom.com/>; workshop posters were printed and displayed in several universities across Australia, and we contacted by email many potential attendees.

#### **Organisers’ opinion of success**

In our opinion (supported by the feedback from the participants), the workshop was very successful. The invited speakers gave several brilliant talks, and one of them, Professor Jorge Lauret, even a four-hour mini-course. The participating students gained a valuable experience and flavour of mathematical research. We implemented several measures to increase female participation in the workshop. In particular, we were very pleased that Professor Francine Meylan accepted our invitation to be one of the invited speakers.