

# REPORT ON THE 14TH GALWAY TOPOLOGY COLLOQUIUM

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Despite the name, the Galway Topology Colloquium series is held at varying locations around Ireland and the UK. The 14th session was held in Queen's University Belfast (QUB) between August 15th and 17th, 2011. It served a dual purpose by also marking the retirement from QUB of Brian McMaster who has been active in this series since its inception. The event was supported by the Irish Mathematical Society, a generous Scheme 1 grant from the London Mathematical Society and the Pure Mathematics Research Centre at QUB.

The conference was attended by a total of 25 participants, including eight postgraduate students which was very gratifying as one of the features of the Galway talks has been involving students. It was, indeed, pleasing to see the level of interaction between the invited speakers and the younger participants. In fact, one of the student participants, Shari Levine from Oxford, is currently organising the 15th colloquium in the series. There were 18 talks in total over the three days. We limit ourselves here to the describing the talks given by the invited speakers.

**Alexander Arhangel'skii** (Ohio and Moscow) talked on *Remainders of Various Kinds of Spaces in Compactifications*, mainly about the remainders of non-locally compact topological groups in Hausdorff compactifications.

**Paul Bankston** (Marquette) gave a talk titled *A Framework for Characterising Topological Spaces* which was about deciding whether or not a topological space can be characterised within a class of its "peers" by a sentence of first order logic.

**Paul Gartside** (Pittsburgh) spoke on *Stongly Arcwise Connected Continua* which involved spaces where for every  $n$  points there is an arc connecting them, possibly with the order being specified.

**Jan van Mill** (Amsterdam) gave an interesting survey on *Topological Homogeneity*, including several examples of homogeneous spaces and discussing several open problems.

**Ivan Relly** (Auckland) gave the centrepiece talk of the conference entitled *A Topological Antihero*. This surveyed the topic of topological anti-properties, introduced by Paul Bankston in 1979, and highlighted the contribution to the field of Brian McMaster and his students.

**Dona Strauss** (Leeds) talked on *The Algebra of  $\beta\mathbb{N}$  and Polynomial Returns* which harked back to problems dating back to the 19th century and work of Hardy and Littlewood.

On the Monday evening, the conference dinner was combined with a retirement dinner for Brian and was enjoyed by all. Some photographs of both the conference and the dinner may be found at [http://www.qub.ac.uk/puremaths/Photos/Photograph\\_Album.html](http://www.qub.ac.uk/puremaths/Photos/Photograph_Album.html).