North British Semigroups and Applications Network, Tuesday 30th August 2011

All talks will talk place in Frank Adams room 1 on the first floor of the Alan Turing building in the School of Mathematics, University of Manchester. (See overpage for a map and directions.)

Programme

12:00-13:00 Early arrivers meet for lunch (in the cafe on the ground floor of the Alan Turing Building)

13:00-14:00 *Restriction semigroups*, Victoria Gould (York)

This will be an expository talk introducing restriction semigroups. We explain the various routes to approach them, give some motivation for their study, and one strategy to capture their structure. Our starting point will be an extension of Green's relations. The talk is designed to be accessible to anyone who has taken a first course in Semigroup Theory.

14:00-14:30 *Flat covers of acts over monoids*, Alex Bailey (Southampton)

14:30-15:00 *Model companions of S-posets*, Lubna Shaheen (York)

15:00-15:30 Coffee and Proving Theorems

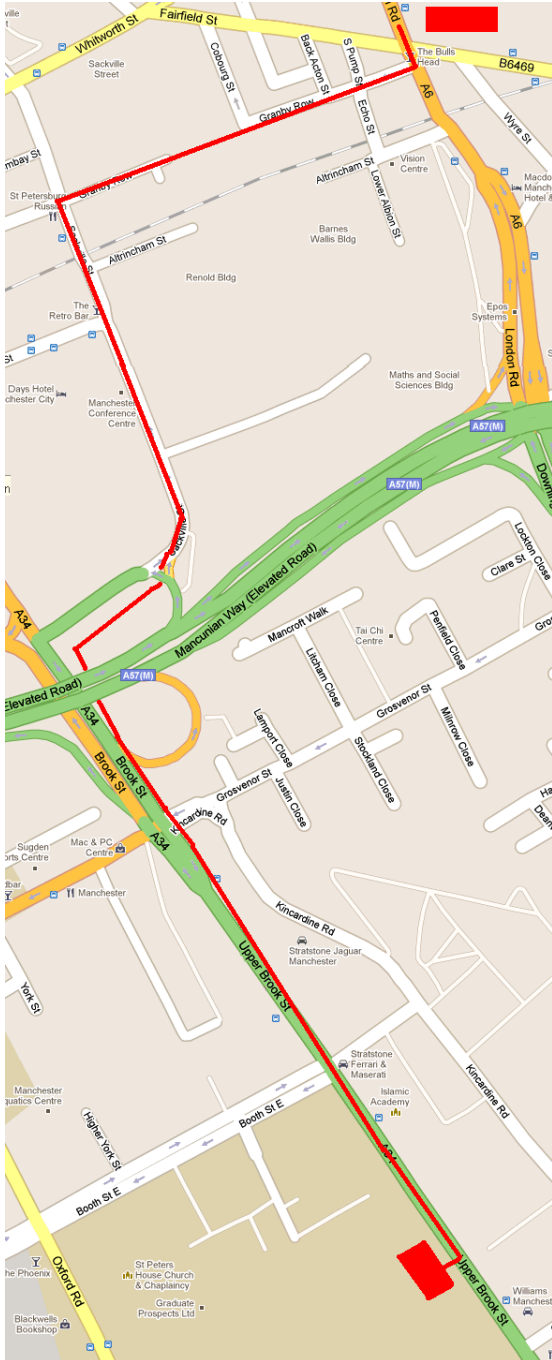15:00-15:30 *The perils of taking shortcuts: embedding semigroups in the 1930s*, Christopher Hollings (Oxford)

I will discuss the problem of embedding (cancellative) semigroups in groups. This was a problem which was first considered in the 1930s, as an analogue of that of embedding rings in fields. Perhaps the most significant contribution in this area was that of A. I. Maltsev in 1939. I will give a brief discussion of Maltsev's work, after having built up to it via the (not always correct) contributions of earlier researchers.

16:00-17:00 *Structures with lots of symmetry*, Robert Gray (Lisbon)

For those able to stay afterwards, we will be going out for an early dinner at a restaurant in the vicinity of Piccadilly railway station. It would be very helpful if you could let us know if you intend to join us for dinner.

Directions from Manchester Piccadilly station

Walking from Manchester Piccadilly to the Alan Turing Building should take around 20 mins.

Leave the station by the Fairfield Street exit (head down the escalators or lift from the main concourse) which brings you out at a big road junction.

Cross both main roads, and go along a smaller road (Granby Row) to the left of the Bull's Head pub.

Keep straight on, as the road becomes a pedestrian walk and then a road again, and at the phoneboxes turn left onto Sackville Street. (**Please note that part of Granby Row is currently closed for building works:** when you reach the closure, follow the signposted diversion to the left under the railway, bear right parallel to the railway, and then turn left onto Sackville Street to rejoin the route described.)

Continue under a bridge between buildings, and where the road bends off to the right, follow the left-hand pavement which becomes a footpath and goes through an underpass.

Afterwards, keep left under the motorway flyover (avoiding a deeper underpass ahead) before bearing right (avoiding yet another underpass to the left).

After very carefully crossing the motorway sliproad, you find yourself on Brook Street. Walk down this (away from the flyover).

At the intersection with Grosvenor Street, cross both roads and then continue along (now Upper) Brook Street on the opposite side.

Cross the next side-road (Booth Street East, carefully again!), continue past the Aquatics Centre car park and then the Alan Turing Building is on your right. To get into the building, go into the walkway after the second "finger" and then the doors are on your right.

Once inside the building, take the stairs (or lift) located on your right-hand side to the first floor. Go through the door to your left (the office should now be in front of you with the lift on the wall behind). Follow the walkway adjacent to the office all the way to the end. The Frank Adams rooms will be on your left.