Welcome back

If you are reading this, then you've successfully arrived at Groups St Andrews in Newcastle and have not travelled instead to one of the many other locations that the conference has visited in the past. If you turned up a year ago in Newcastle to find that there were no group theorists gathering, we apologise for the long wait. Normal mathematical business will resume tomorrow, Sunday 31st July, at 9:30am. The conference will be launched by Denis Osin in Lecture Theatre 2 of the Herschel Building.

Badges

Please wear your badge at all times, otherwise you may well forget who you are.

Newcastle people and conference helpers have stars on their badges and perplexed looks on their faces to aid identification of those with local knowledge.

Sunday 31st

Day outline

9:30 Osin 1; 10:30 Coffee; 11:00 Contributed talks; 12.30 Lunch (provided); 1:30 Harper; 2:30 Brion 1; 3:30 Tea; 4:00 Contributed talks; 5:30 Walking tour.

Contributed talks

11:00am – 12:00pm, Location – 4th Floor Herschel, Teaching Room 4 (HERB.4.TR4)
Chair: Henry Bradford
Alex Evetts, *Formal language descriptions of algebraic and definable sets in finitely generated groups*
Florian Eisele, *On Donovan's conjecture and Picard groups*

11:00am – 12:00pm, Location - 4th Floor Herschel, Teaching Room 2 (HERB.4.TR2)
Chair: Aluna Rizzoli
Robert Shwartz, *Sequences over finite fields defined by OGS and BN-pair decompositions of $PSL_n(q)$ connected to Dickson and Chebyshev polynomials*
Justin McInroy, *Split spin factor algebras*

4:00 – 5:00pm, Location – 4th Floor Herschel, Teaching Room 4 (HERB.4.TR4)
Chair: Victor Sotomayor

Leo Margolis, *A counterexample to the modular isomorphism problem*
Diego García Lucas, *On the modular isomorphism problem: even versus odd characteristic*

4:00 – 5:00pm, Location - 4th Floor Herschel, Teaching Room 2 (HERB.4.TR2)
Chair: Scott Harper
Stephen Humphries, *Weak Cayley table maps: generalized group automorphisms*
Casey Donoven, *Inverse graphs of semigroups*

Abstracts

Abstracts of all talks can be obtained as a pdf file from the conference website, or directly using the following link:

> https://tinyurl.com/Gps2022ab

A small number of paper copies of the abstract booklet will be available, for those that need them.

Sunday evening: walking tour

On Sunday evening some of our local staff and students will lead a short walk around the campus and surroundings, to a nearby bit of town where there are multiple pubs and restaurants. If you want to check in to Castle Leazes first, you will be able to find other people from about 6pm at the Hotspur. We will depart the Herschel building at 5.30.

Food, glorious food!

Breakfast

If you are staying in Castle Leazes, then breakfast is provided each morning. Tomorrow (Sunday 31st) and next Saturday (6th), a continental breakfast for you will be placed in the fridges on the floor that you are staying on, and you should help yourself to an appropriate amount of food. On Monday to Friday, a traditional / continental breakfast will be provided through the servery in the main Dining Hall between 8am and 9am.

Lunch

Lunch is provided by the conference on Sunday 31st July and Saturday 6th August. In LATE-BREAKING-NEWS, on Wednesday 3rd August we will give you a packed lunch which you can either

take with you to Hadrian's Wall, and dine with a view, or eat anywhere else of your choosing.

Other days you'll have to scavenge lunch from various places on or near campus. Campus places will all be shut at the weekend, but during the week the closest convenient lunch spot is the university canteen, "Courtyard". For a wider range of options (and on Saturdays) try out Grainger Market, 5 minutes walk away.

Dinner and further info

We have made a document giving a description of a large number of places to eat and drink, which you can read here:

> https://tinyurl.com/5n7r989x

A small number of paper copies will be available at the registration desk. An online version of the map and list of venues can be accessed via

> https://tinyurl.com/4ky8tvhy

Never mind the food, where's the coffee?!

Coffee and tea will be served each day at 10:30am and 3:30pm in the foyer of the Herschel building. This is the same place as registration. Other than that, there is a coffee shop called "Anyone", which is on the main road (Percy Street), almost opposite Haymarket metro station.

The Hotspur

This is the default watering hole of the mathematics department. It is on the main road (103 Percy Street), close to the Herschel building, and almost opposite Haymarket metro station. Ideal for planning where you will go to eat in the evening. It has a collection of cask ales as well as wines and spirits. They also sometimes sell food.

Wifi

Wifi is available across the campus either as Eduroam or Wifi Guest. If you have an Eduroam account then use that, otherwise ask at the registration desk for help getting on the Wifi Guest network.

Additional Information

The Registration Desk will be open on Saturday in the Herschel Building. From there we can show you the location of the lecture theatres, and point you in the direction of bars and restaurants.

Registration times: Saturday 1:30 pm to 4:00 pm, Sunday 9:00 am and then at coffee breaks through the week.

Non-mathematical entertainment

Hard to imagine you'll need any, but if you would like an evening away from mathematics, take a look at the following websites:

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https://newcastleeats.co.uk/
  30-essential-newcastle-eats-summer-2022/
https://www.thecrackmagazine.com/
  whatson?date_from=2022-07-28&date_to=
  2022-10-28&category=stage
https://www.thestand.co.uk/newcastle/
  whats-on
https://thecluny.com/gigs/
https://www.boulevardnewcastle.co.uk/
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Pub of the day!

If you would like some liquid refreshment on Saturday evening in the company of other group theorists, we suggest heading to the middle of town, and looking between the stanchions of the Tyne Bridge, where you should find the Bridge Tavern.

An interview with Harald Helfgott

Your trusty editors interviewed Harald, who was one of the invited speakers at Groups St Andrews 2017 in Birmingham. The interview took place over WhatsApp.

Question 1: *If you had to describe yourself as a group, which group would you be, and why?*
$(\mathbb{Z}/p\mathbb{Z}) \wr \mathbb{Z}$ — I shift back and forth between fields.

Question 2: *When I first heard someone talking about expanders, I assumed it was a type of underwear. What's your favourite expander?*
My myopic reply is that it is a toss-up between "$\mathrm{SL}_n(\mathbb{F}_q)$ with respect to an arbitrary set of generators (conjecturally)" and "a divisibility graph (if you tweak the definition enough)"

Why? I said "myopic".

Question 3: *What's the scariest group?*
Hm, good one! Perhaps Cremona's group, because it is big, and I can't seem to get a hold of it. Or, better yet, [EDS - redacted] — it is cursed.

Taxis

Try Blue Line taxis on 0191 262 6666. They also have an app you can download.

For those with no soul, there is also Uber.