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# BMC 2008 SPLINTER GROUP SCHEDULE

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There is a tea break from 16.00–16.30, which will be in Derwent College for groups meeting in Langwith (L\*\*\*), and in the NSLC for groups meeting in Alcuin East Wing (AEW\*\*\*). All rooms have a PC (except L037), data projector, blackboard, and whiteboard. (The number in parentheses after the room number indicates its capacity.)

## Wednesday 26 March

### Mathematical Biology AEW104 (60)

- 14.00 Natasha Jonoska, *DNA rearrangements through virtual knot diagrams*.
- 14.30 Kasper Peeters, *Group theory and virus capsid dynamics*.
- 15.00 Stephen Cornell, *Exact asymptotic methods for spatially extended stochastic populations*.
- 15.30 Ivana Gudelj, *Mathematical models of bacteria-phage coevolution*.
- 16.30 Edward Codling, *Random walks in biology*.
- 17.00 Paul Armsworth, *Models of ecological dispersal*.

### Semigroups L002 (85)

- 14.00 John Fountain, *Reflection monoids*.
- 14.30 Des FitzGerald, *Representing inverse semigroups by block permutations*.
- 15.00 Christopher Hollings, *Partial actions of inverse monoids on  $K$ -rings*.
- 15.30 Mark Kambites, *The word problem is not so hard after all*.
- 16.30 Claas Roeper, *Syntactic monoids of context-free languages and groups*.
- 17.00 Alexei Vernitski, *A problem in a free group related to the Andrews-Curtis conjecture*.

### Functional Analysis L036 (84)

- 14.00 Jim Wright,
- 14.30 Rupert Levene, *The topological stable rank of non-selfadjoint operator algebras*.
- 15.00 Ian Doust, *Enhanced negative type for finite metric trees*.
- 15.30 Stanislav Shkarin, *On the spectrum of frequently hypercyclic operators*.
- 16.30 Mihály Bakonyi, *Moment problems for real measures on the unit circle*.
- 17.00 Eugene Shargorodsky, *Can pseudospectra jump?*

### Algebras and Groups L037 (35)

- 14.00 Abdulrasool Azizi, *Strongly irreducible ideals*.
- 14.30 Liam O'Carroll, *The uniform Artin-Rees property and the prime spectrum*.
- 15.00 Helena Fischbacher-Weitz, *Bounds for membership in the Frobenius closure and tight closure*.
- 15.30 Natalia Iyudu, *RIT algebras: images of finite dimensional representations and combinatorics*.
- 16.30 Marianne Johnson, *On torsion in free central extensions of groups*.

### History of Mathematics L047 (72)

- 14.00 Noel-Ann Bradshaw, *Using the past to inspire the future*.
- 14.30 Peter Lee, *Student's Student's  $t$* .
- 15.00 Tony Mann, *Christopher Wren and mathematics in London*.
- 15.30 Nicole Bloye, *Geometry and sin*.
- 16.30 Daniel Mintz, *The hunt for the lost cities of Ptolemy*.
- 17.00 Marit Hartveit, *The Edinburgh Association for the University Education of Women*.

### Stochastic Analysis L049 (20)

- 14.00 Jan Maas, *Elliptic operators on abstract Wiener spaces*.

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## Thursday 27 March

### Semigroups L002 (85)

- 14.00 Nik Ruskuc, *Diagonal acts and applications.*
- 14.30 Alan Cain, *Automatic presentations for semigroups.*
- 15.00 James Mitchell, *The Bergman property for semigroups.*
- 15.30 Victor Maltcev, *Existentially closed semigroups with Bergman's property.*
- 16.30 Elaine Render, *Polycyclic and bicyclic monoid automata.*
- 17.00 Chrystopher Nehaniv, *Analogues of the decimal expansion for all groups and monoids.*

### Functional Analysis L036 (84)

- 14.00 Nico Spronk, *Centres of group algebras of compact groups.*
- 14.30 Jonathan Mason, *An intuitive proof of Heath's theorem on Swiss cheese sets.*
- 15.00 Amol Sasane, *The Hermite property of a causal Wiener algebra used in control theory.*
- 15.30 Michael Doré, *A compact null set with a differentiability point of every Lipschitz function.*
- 16.30 Spyros Dendrinos, *Universal estimates in harmonic analysis; a geometric inequality.*
- 17.00 Bryan Rynne, *Existence of non-variational eigenvalues of the  $p$ -Laplacian operator.*

### Geometry and Topology L037 (35)

- 14.00 Declan Davis, *Generic one-parameter transitions of the affine parabolic curve.*
- 14.30 Paul Warder, *Affine equidistants and their generating families.*
- 15.00 Vladimir Kisil, *Elliptic, parabolic and hyperbolic geometry of the upper half-plane.*
- 15.30 Sarah Campbell, *Property A and affine buildings.* (From GR)
- 16.30 Zacky Choo, *Finding an element in  $H_3(GL(F))$ .*
- 17.00 Hugh Morton, *Doubly-periodic textile patterns.*

### Number Theory L047 (72)

- 14.00 Paul Truman, *Hopf-Galois module structure of tame extensions of prime power degree.*
- 14.30 L J P Kilford, *On the fields generated by the coefficients of modular eigenforms.*
- 15.00 Samir Siksek, *Multi-Frey and Diophantine equations.*
- 15.30 Chris Smyth, *Integers  $n$  dividing  $2^n + 1$ .*
- 16.30 Simon Kristensen, *Irrational rotations and inhomogeneous Diophantine approximation.*
- 17.00 Alan Haynes, *The group ring of  $\mathbb{Q}/\mathbb{Z}$  and an application of a divisor problem.*

### Random Matrices L049 (20)

- 14.00 Pierpaolo Vivo, *Random covariance matrices: a deformed Wishart-Laguerre ensemble.*
- 14.30 Basile Francesco, *A theorem mapping chRMT to low energy QCD through superbosonisation.*
- 15.00 Christopher Hughes, *Zeros of the derivative of characteristic polynomials.*
- 15.30 Duc-Khiem Huynh, *RMT and zero statistics of elliptic curve  $L$ -functions.*
- 16.30 Vladimir Kisil, *Representations of nilpotent groups and dynamics.* (From MP)

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## Friday 28 March

### Semigroups L002 (85)

- 14.00 Stuart Margolis, *Subgroups of free idempotent generated semigroups need not be free.*
- 14.30 Valdis Laan, *Morita equivalence of partially ordered monoids.*
- 15.00 Robert Gray, *Approaching cosets using Green's relations and Schutzenberger groups.*
- 15.30 Mark Lawson, *Primitive partial permutation representations of the polycyclic monoids.*