

Monday — Outline Programme

8.00 – 8.50	Registration	
8.50 – 9.00	Welcome Main Auditorium	
9.00 – 10.00	Plenary lecture Daniel Horsley <i>Switching techniques for edge decompositions of graphs</i> Main Auditorium	Chair: Bridget Webb
10.00 – 10.30	Coffee break	
10.30 – 11.15	Contributed talks	
11.15 – 12.15	Plenary lecture Rosemary Bailey <i>Relations among partitions</i> Main Auditorium	Chair: Simon Blackburn
12.15 – 12.20	Announcements	
12.20 – 1.45	Lunch	
1.45 – 3.00	Contributed talks	
3.00 – 3.30	Tea break	
3.30 – 6.00	Contributed talks	
7.00 – 8.00	Civic reception City Hall	

Monday

Contributed talks Monday 10.30 – 11.15

Main Auditorium Chair: Trent Marbach

10.30 – 10.50 **Alia Sajjad**
Optimal incomplete block designs

10.55 – 11.15 **Douglas Stinson**
Optimal Ramp Schemes and Related Combinatorial Objects

Level 1 Auditorium Chair: Gleb Nenashev

10.30 – 10.50 **Sandra Kingan**
Characterizing excluded minor classes using the Strong Splitter Theorem

10.55 – 11.15 **Criel Merino**
Extremal multicomplexes

Contributed talks Monday 1.45 – 3.00

Auditorium A Chair: Susana-Clara López

1.45 – 2.05 **Ann Trenk**
Finding Balance: Split Graphs and Related Classes

2.10 – 2.30 **Elizabeth Jonck**
(1,1,2,3)-Colourings of Subcubic Graphs

2.35 – 2.55 **Liam Harris**
Domination and Independence of Bishop Graphs

Auditorium B Chair: Vincent Vajnovszki

1.45 – 2.05 **Nicola Pace**
On the existence and construction of PD-sets for linear codes

2.10 – 2.30 **Simon Blackburn**
Non-overlapping codes

2.35 – 2.55 **Diane Donovan**
Difference covering arrays delivering high rate LDPC codes

Monday

Auditorium C		Chair: Graham Farr
1.45 – 2.05	Kiyoshi Ando <i>A new forbidden subgraph for 5-contractible edges</i>	
2.10 – 2.30	Tariq Chishti <i>On mark sequences in bipartite multidigraphs</i>	
2.35 – 2.55	Kai Siong Yow <i>Tutte Invariants for Alternating Dimaps</i>	

Level 1 Auditorium		Chair: Anum Khalid
1.45 – 2.05	Michael Weiner <i>Rational Dyck paths and factor-free Dyck words</i>	
2.10 – 2.30	Svante Linusson <i>Inverse of the Pak-Stanley bijection for k-Shi arrangement</i>	

Conference Room 6		Chair: Jessica McDonald
1.45 – 2.05	Sergey Kitaev <i>Crown graphs and their representation numbers</i>	
2.10 – 2.30	Morimasa Tsuchiya <i>On strict-double-bound numbers of graphs and cut sets</i>	
2.35 – 2.55	Rinovia Simanjuntak <i>Distance Magic Labelings of Distance Regular Graphs</i>	

Contributed talks		Monday 3.30 – 5.30
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Auditorium A		Chair: Terry Griggs
3.30 – 3.50	Anna Taranenko <i>On transversals in intercalated latin squares and in the Cayley table of the group Z_2^m</i>	
3.55 – 4.15	Trent Marbach <i>Intersection of transversals in the Latin square B_n, with applications to Latin trades</i>	
4.20 – 4.40	Anthony Hilton <i>A variation of Ryser's theorem for partial (v_1, \dots, v_n)-latinized squares</i>	
4.45 – 5.05	Ian Wanless <i>Partial latin squares that embed in an infinite group but not into any finite group</i>	
5.10 – 5.30	Vladimir Potapov <i>Construction of Pairs of Orthogonal Latin Cubes</i>	

Monday

Auditorium B		Chair: Eoin Long
3.30 – 3.50	Mikhail Isaev <i>Subgraph counts for dense graphs with specified degrees</i>	
3.55 – 4.15	Peter Allen <i>A simple proof of Shamir's conjecture</i>	
4.20 – 4.40	Jack Bartley <i>The emergence of the square of a Hamilton cycle in random geometric graphs</i>	
4.45 – 5.05	Fiona Skerman <i>Inversions in random node labelings of random trees</i>	
5.10 – 5.30	Shohei Satake <i>Erdős-Rényi Theory for asymmetric tournaments</i>	
5.35 – 5.55	Izolda Gorgol <i>On lower bound for induced Ramsey numbers</i>	

Auditorium C		Chair: Carl Johan Casselgren
3.30 – 3.50	Jan van den Heuvel <i>Improper Colourings inspired by Hadwiger's Conjecture</i>	
3.55 – 4.15	Daniel Quiroz <i>Colouring exact distance graphs of chordal graphs</i>	
4.20 – 4.40	Martin Škoviera <i>Smallest snarks with oddness 4</i>	
4.45 – 5.05	Edita Máčajová <i>Snarks that cannot be covered with four perfect matchings</i>	
5.10 – 5.30	Jason Brown <i>Recent Results on Chromatic Polynomials</i>	
5.35 – 5.55	Vadim Levit <i>Violator spaces vs closure spaces</i>	

Level 1 Auditorium		Chair: Alex Burstein
3.30 – 3.50	Sergi Elizalde <i>The structure of the consecutive pattern poset</i>	
3.55 – 4.15	Christian Bean <i>Creating a Virtual Combinatorist</i>	
4.20 – 4.40	Yan Zhuang <i>Shuffle-Compatible Permutation Statistics</i>	
4.45 – 5.05	Brian Miceli <i>Statistics on Set Partitions</i>	
5.10 – 5.30	Shishuo Fu <i>On 1212-avoiding Restricted Growth Functions</i>	
5.35 – 5.55	Klas Markström <i>Condorcet domains and Turán type problems for permutations</i>	

Monday

Conference Room 6

Chair: David Roberson

3.30 – 3.50

Soňa Pavlíková

Negatively invertible graphs

3.55 – 4.15

Kiki Sugeng

On Antiadjacency Matrix Properties

4.20 – 4.40

Shariefuddin Pirzada

On the sum of Laplacian spectra of graphs

4.45 – 5.05

Ferenc Bencs

Some results on the roots of the independence polynomial of graphs

5.10 – 5.30

Yotsanan Meemark

Perfect state transfer in Cayley graphs over finite chain rings

5.35 – 5.55

Robert Bailey

A database of distance-regular graphs

Tuesday — Outline Programme

9.00 – 10.00	Plenary lecture Julia Böttcher <i>Large-scale structures in random graphs</i> Main Auditorium	Chair: David Bevan
10.00 – 10.30	Coffee break	
10.30 – 11.15	Contributed talks	
11.15 – 12.15	Plenary lecture Robert Morris <i>Monotone cellular automata</i> Main Auditorium	Chair: Keith Edwards
12.15 – 12.20	Announcements	
12.20 – 1.45	Lunch	
1.45 – 3.00	Mini-symposia	
3.00 – 3.30	Tea break	
3.30 – 5.00	Mini-symposia	
5.00 – 6.00	BCC business meeting Level 1 Auditorium	
7.00 – 9.00	Concert Level 1 Auditorium	Compère: Thomas Selig

Tuesday

Contributed talks Tuesday 10.30 – 11.15

Main Auditorium Chair: Liam Harris

10.30 – 10.50 **Jessica Enright**
Adversarial games on interval and permutation graph representations

10.55 – 11.15 **Laura Mančinska**
Quantum and non-signalling graph isomorphism

Level 1 Auditorium Chair: Yoshimi Egawa

10.30 – 10.50 **Susana-Clara López**
Characterizing path-like trees from linear configurations

10.55 – 11.15 **Behrooz Bagheri Gh.**
Compatible Cycle Decomposition of bad K_5 -minor-free eulerian graphs

Mini-symposia Tuesday 1.45 – 3.00 & 3.30 – 5.00

Auditorium A Chair: Andrew Treglown

Emerging methods in Extremal Combinatorics

1.45 – 1.50 Introduction

1.50 – 2.20 **Peter Keevash**
Forbidden vector-valued intersections

2.25 – 2.55 **Mathias Schacht**
The three edge theorem

3.30 – 4.00 **Daniel Král'**
Uniqueness of optimal configurations in extremal combinatorics

4.05 – 4.35 **Jan Hladký**
Tilings in graphons

4.40 – 5.00 **Eoin Long** (contributed talk)
Tournament Quasirandomness from counting

Tuesday

Auditorium B

Chair: Jan van den Heuvel

Graph Colouring

- 1.45 – 1.50 Introduction
- 1.50 – 2.20 **Maya Stein**
Cycle partitioning in hypergraphs
- 2.25 – 2.55 **Jessica McDonald**
List edge-colouring graphs with restricted odd cycles
- 3.30 – 4.00 **Marthe Bonamy**
Tight lower bounds for the complexity of multicoloring
- 4.05 – 4.35 **Maria Axenovich**
Planar graphs - improper colorings and coverings with induced forests
- 4.40 – 5.00 **Carl Johan Casselgren** (contributed talk)
Coloring graphs from random lists

Auditorium C

Chair: Sergey Kitaev

Patterns in Permutations and Words

- 1.45 – 1.50 Introduction
- 1.50 – 2.20 **Vincent Vajnovszki**
The equidistribution of some descent set based statistics on words
- 2.25 – 2.55 **Jeff Remmel**
Block Patterns in Generalized Euler Permutations and the Generalized Cluster Method
- 3.30 – 4.00 **Alexander Burstein**
Unimodal inversion sequences and pattern-avoiding classes
- 4.05 – 4.35 **Bruce Sagan**
Descent and peak polynomials
- 4.40 – 5.00 **David Bevan** (contributed talk)
Prolific permutations and permuted packings

Wednesday — Outline Programme

9.00 – 10.00	Tutte Centenary Lecture Graham Farr <i>W. T. Tutte: Graph theory as he had grown it</i> Main Auditorium	Chair: Iain Moffatt
10.00 – 10.30	Coffee break	
10.30 – 11.15	Contributed talks	
11.15 – 12.15	Plenary lecture Julia Wolf <i>Some Applications of Relative Entropy in Additive Combinatorics</i> Main Auditorium	Chair: Kitty Meeks
12.15 – 12.20	Announcements	
12.20 – 1.45	Lunch	
1.00 – 7.00	Excursion to Culzean Castle	

Wednesday

Contributed talks

Wednesday 10.30 – 11.15

Main Auditorium

Chair: Allan Lo

10.30 – 10.50

Terry Griggs*Pentagonal Geometries*

10.55 – 11.15

Sandro Rajola*On maximal partial ovoids of the elliptic quadric $Q^-(5, q)$ of $PG(5, q)$*

Level 1 Auditorium

Chair: Nicholas Korpelainen

10.30 – 10.50

Anum Khalid*Counting Generalised Dyck Paths*

10.55 – 11.15

Boris Granovsky*Asymptotic enumeration by Khintchine-Meinardus probabilistic method: Necessary and sufficient conditions for exponential growth*

Thursday — Outline Programme

9.00 – 10.00	Plenary lecture Benny Sudakov <i>Robustness of graph properties</i> Main Auditorium	Chair: David Manlove
10.00 – 10.30	Coffee break	
10.30 – 11.15	Contributed talks	
11.15 – 12.15	Plenary lecture Gi-Sang Cheon <i>New applications of Riordan arrays</i> Main Auditorium	Chair: Sergey Kitaev
12.15 – 12.20	Announcements	
12.20 – 1.45	Lunch	
1.45 – 3.00	Contributed talks	
3.00 – 3.30	Tea break	
3.30 – 5.10	Contributed talks	
5.10 – 6.00	Open problem session Level 1 Auditorium	Chair: Peter Cameron
6.30 – 10.30	Conference dinner Barony Hall	

Thursday

Contributed talks Thursday 10.30 – 11.15

Main Auditorium Chair: Tomas Nilson

10.30 – 10.50 **Maura Paterson**
Nonexistence results for strong external difference families

10.55 – 11.15 **Aleen Sheikh**
The Davenport constant of finite abelian groups

Level 1 Auditorium Chair: Sandra Kingan

10.30 – 10.50 **Gleb Nenashev**
Hypergraphical Matroids

10.55 – 11.15 **Andrzej Żak**
Generalized transversals, generalized vertex covers and node-fault-tolerance in graphs

Contributed talks Thursday 1.45 – 3.00

Auditorium A Chair: David Bevan

1.45 – 2.05 **Sophie Huczynska**
Graph classes under homomorphic image order

2.10 – 2.30 **David Roberson**
Homomorphisms of Strongly Regular Graphs

2.35 – 2.55 **Rueiher Tsaur**
Contractibility of Graphs

Auditorium B Chair: Bruce Sagan

1.45 – 2.05 **Jakub Sliáčan**
Juxtaposing Catalan permutation classes with monotone ones

2.10 – 2.30 **Timothy Alland**
Pattern Avoidance and Fiber Bundle Structures on Schubert Varieties

2.35 – 2.55 **Dominic Searles**
Stanley symmetric functions and the slide product on weak compositions

Thursday

Auditorium C Chair: Soňa Pavlíková

- 1.45 – 2.05 **James Tuite**
Diregularity of extremal networks
- 2.10 – 2.30 **James Fraser**
Automorphisms of the Gómez Graphs
- 2.35 – 2.55 **Grahame Erskine**
Large Cayley graphs of diameter three

Level 1 Auditorium Chair: Ian Wanless

- 1.45 – 2.05 **Noam Zeilberger**
Some bridges between lambda calculus and graphs on surfaces
- 2.10 – 2.30 **Iain Moffatt**
The Tutte polynomial and its extensions
- 2.35 – 2.55 **Jozef Širáň**
Regular and bi-rotary maps of negative prime Euler characteristic

Conference Room 6 Chair: Cian O'Brien

- 1.45 – 2.05 **Rachel Quinlan**
Counting matrices over finite fields
- 2.10 – 2.30 **Viktor Zamaraev**
Specifying a positive threshold function via extremal points
- 2.35 – 2.55 **Nicholas Korpelainen**
Variations on parking functions

Contributed talks Thursday 3.30 – 5.10

Auditorium A Chair: Anthony Hilton

- 3.30 – 3.50 **Yujie Gu**
Bounds on traceability schemes
- 3.55 – 4.15 **Casey Tompkins**
An upper bound on the size of diamond-free families of sets
- 4.20 – 4.40 **Jie Zheng**
Bounds of the sizes of families with uncomplemented and mutually incomparable conditions
- 4.45 – 5.05 **Adam Mammoliti**
The Erdős-Ko-Rado Theorem, Generalisations and Beyond

Thursday

Auditorium B Chair: David Pike

3.30 – 3.50 **Allan Lo**
Designs beyond quasirandomness

3.55 – 4.15 **Peter Cameron**
Synchronization, association schemes and Steiner systems

4.20 – 4.40 **Andrea Burgess**
Colourings of group divisible designs

4.45 – 5.05 **Tomas Nilson**
A new family of triple arrays

Auditorium C Chair: Julia Böttcher

3.30 – 3.50 **Andrew Treglown**
An improved lower bound for Folkman's Theorem

3.55 – 4.15 **Robert Johnson**
Ramsey Problems for Odd Cycles

4.20 – 4.40 **Johannes Hattingh**
Some multicolor bipartite Ramsey numbers involving cycles and a small number of colors

4.45 – 5.05 **Robert Hancock**
Independent sets in hypergraphs and Ramsey properties of graphs and the integers

Level 1 Auditorium Chair: Rachel Quinlan

3.30 – 3.50 **Olga O'Mahony**
Edge-minimal graphs of exponent 2

3.55 – 4.15 **Cian O'Brien**
Alternating Signed Bipartite Graphs

4.20 – 4.40 **Jonas Granholm**
Some cyclic properties of graphs with a local Ore-type condition

4.45 – 5.05 **Khawaja Fahd**
Shortest Path in Inner Dualist of Hexagonal Graph

Thursday

Conference Room 6

Chair: Fiona Skerman

3.30 – 3.50

Kitty Meeks

The parameterised complexity of computing the maximum modularity of a graph

3.55 – 4.15

Paul Ouvrard

Dominating set reconfiguration

4.20 – 4.40

HongPhong Pham

Tropical paths in vertex-colored graphs

4.45 – 5.05

David Tankus

Generating subgraphs in chordal graphs

Friday — Outline Programme

9.00 – 10.00	Plenary lecture Bill Chen <i>The spt-Function of Andrews</i> Main Auditorium	Chair: Peter Cameron
10.00 – 10.30	Coffee break	
10.30 – 11.15	Contributed talks	
11.15 – 12.15	Richard Rado Lecture Vít Jelínek <i>Ramsey-Type Problems in Permutations</i> Main Auditorium	Chair: Sophie Huczynska
12.15 – 12.20	Close of conference	
12.20 – 1.45	Lunch	

Friday

Contributed talks Friday 10.30 – 11.15

Main Auditorium Chair: Andrea Burgess

10.30 – 10.50 **David Pike**
Twofold triple systems with 2-intersecting Gray codes

10.55 – 11.15 **Bridget Webb**
Countably infinite homogeneous STS

Level 1 Auditorium Chair: Behrooz Bagheri Gh.

10.30 – 10.50 **Yu-Fong Hsu**
All graphs with degree 0 or 4 whose complements have 4-cycle systems

10.55 – 11.15 **Yoshimi Egawa**
Path-factors and odd components