List B

Combinatorial staff, research students, lecture courses and seminars at departments in Britain.

An asterisk denotes a contact name from whom further information can be obtained.

Under some entries the combinatorial journals currently being taken are listed; a key to the titles is as follows:

A	Aequationes Mathematicae	N	Discrete Mathematics
B	Algebra Universalis	O	Discussiones Mathematicae: GraphTheory
C	Ars Combinatorica	P	European Journal of Combinatorics
D	Australasian Journal of Combinatorics	Q	Finite Fields and Applications
E	Biometrics	R	Geometriae Dedicata
F	Biometrika	S	Graphs and Combinatorics
G	Bulletin of the Institute of Combinatorics and itsApplications	T	IEEE Transactions on Information Theory
H	Combinatorica	U	Journal of Algebraic Combinatorics
I	Combinatorics, Probability and Computing	V	Journal of Combinatorial Design
J	Design, Codes and Cryptography	W	Journal of Combinatorial Mathematics and Combinatorial Computing
L	Discrete and Computational Geometry	X	Journal of Combinatorial Theory Series A
M	Discrete Applied Mathematics	Y	Journal of Combinatorial Theory Series B
a	Journal of Geometry	Z	Journal of Cryptology
b	Journal of Graph Theory	f	Order
c	Journal of Statistical Planning and Inference	g	Random Structures and Algorithms
d	Linear Algebra and its Applications	h	SIAM Journal on Discrete Mathematics
e	Networks	i	Utilitas Mathematica

UNIVERSITY OF ABERDEEN

Business School University of Aberdeen, Edward Wright Building, Dunbar Street,

Old Aberdeen, AB24 3QY. Tel: 01224 272167
http://www.abdn.ac.uk/business
Dr J.D. Lamb* (graphs, matroids, combinatorial optimisation)

Lecture Courses: There are a number of general discrete mathematics courses.

Current Periodicals; A, B, E, F, H, I, J, L, M, N, P, Q, R, T, V, W, Z, d, g (some electronic access only).

UNIVERSITY OF ABERYSTWYTH
Institute of Mathematical & Physical Sciences Aberystwyth University, Aberystwyth, SY23 3BZ. Tel: 01970 622802 Fax: 01970 6227777
http://www.aber.ac.uk/~matwww
Prof. V.C. Mavron* (designs, codes)
Dr. T. P. McDonough (designs, permutation groups, codes)
Prof. A.O. Morris (Emeritus: representation theory and algebraic combinatorics)

Research student C Andreou (Regular Hadamard Matrices)

Lecture courses Graphs and Network (24 lectures, Prof. Mavron)
Groups (20 lectures, Prof. Mavron)

Current periodicals: P, U, h

BANGOR UNIVERSITY
School of Computer Science University of Wales, Dean Street, Bangor, Gwynedd LL57 1UT. Tel: 01248 382686 Fax: 01248 361429
http://www.math.bangor.ac.uk/
Dr. C.D. Wensley* (combinatorial group theory, combinatorial species)

UNIVERSITY OF BATH
Department of Mathematical Sciences University of Bath, Bath, BA2 7AY Tel: 01225 386989 Fax: 01225 386492
http://www.bath.ac.uk/math-sci
Prof. Mathew Penrose (probability theory, geometric random graphs)
Dr. Bernd Sing* (aperiodic tilings and sequences, enumerative combinatorics, applications to physics)

BIRKBECK COLLEGE
School of Economics, Mathematics and Statistics Birkbeck College, Malet Street, London WC1E 7HX. Tel: 0207 631 6428 Fax: 0207 631 6416
http://www.econ.bbk.ac.uk
Dr. A. Bowler* (symmetric designs, combinatorial matrices, permutation groups)

School of Computer Science and Information Systems Birkbeck College, Malet Street, London WC1E 7HX. Tel: 0207 631 6700 Fax: 0207 631 6727
http://www.dcs.bbk.ac.uk

Prof. T.I. Fenner (combinatorial algorithms, probabilistic algorithms, random graphs)
Dr. K. Gibson (cryptography, combinatorial algorithms)
Prof. G. Loizou (combinatorial algorithms)

UNIVERSITY OF BIRMINGHAM

School of Mathematics University of Birmingham, Edgbaston, Birmingham B15 2TT. Tel: 0121 414 6587 Fax: 0121 414 3389
http://www.mat.bham.ac.uk
Dr. P. Butkovič (Combinatorial Optimisation)
Prof. R.T. Curtis (Group Theory, Representation Theory)
Dr. Nikolaos Fontoulakis (Random graphs, Extremal Combinatorics)
Dr. A.D. Gardiner (Graph theory)
Dr. D. Kühn (Graph Theory, Probabilistic Methods)
Dr. D. Osthus* (Graph theory, Probabilistic Methods, Randomized Algorithms)

Research Students
O. Cooley (Ramsey theorey and extremal graph theory, Dr. Kühn)
B. Fairbairn (Combinatorial Algebra, Prof. Curtis)
L. Kelly (Extremal graph theory. Dr. Osthus).
A. Young (Extremal problems on digraphs, Dr. Osthus).

Lecture courses
Advanced Topics in Combinatorics (22, 4th year, Dr. Kühn)
Combinatorial Optimisation (22 lectures, 3rd year, Dr. Butkovič)
Combinatorics (22 lectures, 3rd and 4th year, Dr. Gardiner)
Communication Theory (22 lectures, 3rd and 4th year, Dr. Osthus)
Computability (22 lectures, 3rd and 4th years, Dr. Osthus)
Discrete Mathematics (22 lectures, 1st year, Dr. Gardiner)

Seminar Combinatorics Research Seminar (Thursdays at 3.00 p.m., Dr. Kühn and Dr. Osthus)

UNIVERSITY OF BRISTOL

Department of Mathematics University of Bristol, University Walk, Bristol, BS8 1TW, Tel: 0117 928 7978, Fax: 0117 928 7999.
http://www.maths.bris.ac.uk
Dr. Harald Helfgott (combinatorial number theory)
Dr. Misha Rudnev (harmonic analysis, geometric combinatorics)
Prof. Andreas Winter (quantum and classical information theory).

Research Fellows
Dr. Nicholas Georgiou* (random structures, partially ordered sets)
Dr. Andrew Goodall (algebraic graph theory)

Research Students:
Joseph Grant (representation theory, Dr. Joseph Chuang)
Sean Prendiville (additive and combinatorial number theory: Prof. Trevor Wooley).

Tony Skyner (representation theory: Dr. Chuang)

Lecture Courses
Discrete Mathematics I (48 lectures, 1st year)
Discrete Mathematics II (12 lectures, 2nd year)
Optimisation 2 (36 lectures, 2nd year)
Information Theory (18 lectures, 3rd year)
Experimental Design (18 lectures, 3rd year)
Computational Complexity Theory (20 lectures, 3rd year)
Optimisation 3 (36 lectures, 3rd year)
Quantum Information Theory (16 lectures, 4th year)

Current Periodicals: E, h (paper): A, B, E, F, H, I, J, L, M, N, P, Q, R, S, T, U, V, X, Y, Z, a, b, c, d, e, f, g, h (electronic). There are some old paper copies of A, B, F, H, J, L, M, N, R, T, X, Y, b, d, i.

BRUNEL UNIVERSITY
Department of Mathematical Sciences Brunel University, Kingston Lane, Uxbridge, Middlesex UB8 3PH. Tel: 01895 265745 Fax: 01895 265732
http://www.brunel.ac.uk/about/acad/siscm/maths
Dr. Rhiannon Hall (matroids, graphs)
Dr. Ilia Krasikov (graph theory, combinatorics, coding theory, number theory, orthogonal polynomials)
Dr. Igor Krasovsky (random matrices, orthogonal polynomials)
Prof. Gautam Mitra (combinatorial optimisation)
Dr. Steven Noble* (graph theory, combinatorial optimisation)

Research Students
Nicole Eggemann (Scale-free networks, Dr. Noble)
Alexander Zarkh (Discrete Orthogonal Polynomials, Dr. Krasikov).

Lecture courses
Encryption and Data Compression (48 lectures, 3rd year, Dr. Krasikov)
Algebra and Discrete Mathematics (48 lectures, 2nd year, Dr. Krasikov and Dr. Krasovsky)
Discrete Mathematics, Probability and Statistics (48 lectures, 1st year, Dr. Shaw and Mrs. Browne)
Working paper series Technical Reports of Department of Mathematics (Ms. B. Curr)

Current Periodicals: A, B, F, H, I, J, L, M, N, P, Q, R, S, U, V, X, Y, Z, a, b, c, d, e, f, g
(electronic only).

UNIVERSITY OF CAMBRIDGE
Department of Pure Mathematics and Mathematical Statistics Centre for Mathematical Sciences, Wilberforce Rd, Cambridge CB3 0WB. Tel: 01223 337999

Fax: 01223 337920
http://www.dpmms.cam.ac.uk/
Prof. W.T. Gowers (Trinity)
Prof. B. Green (Trinity)
Prof. I.B. Leader* (Trinity)
Prof. J. Saxl (Caius)
Prof. A. Thomason (Clare)

Fellows
Prof. B. Bollobás (Trinity)
Dr. H.T. Croft (Peterhouse)
Dr. O.M. Riordan (King's)
Dr. P. A. Russell (Emmanuel)
Dr. T. Sanders (Christ's)
Dr. M. Walters (Peterhouse)

Judge Business School Trumpington Street, Cambridge CB2 1AG Tel: 01223 339700 Fax: 01223 339701
http://www.jbs.cam.ac.uk/
Dr R. Steinberg*
Dr. R. J. Waters

Research students Mansur Boase (Prof. Gowers)
P. Candela Pokorna (Prof. Gowers)
Demetres Christofides (Prof. Leader)
Tom Coker (Prof. Bollobás)
David Conlon (Prof. Gowers)
David Ellis (Prof. Leader)
Gonzalo Fitz-Ponteveros (Prof. Gowers)
Simon Griffiths (Prof. Leader)
John Haslegrave (Prof. Bollobás)
Allan Lo (Prof. Thomason)
Edward Marchant (Prof. Thomason)
Vicky Neale (Prof. Green)
George Petridis (Prof. Gowers)
Tom Sanders (Prof. Gowers)
Peter Wagner (Prof. Thomason)
Julia Wolf (Prof. Gowers)

Lecture courses
Numbers and Sets (24 lectures, 1st year, Prof. Leader)
Graph Theory (24 lectures, 3rd year, Dr. Riordan)
Coding and Cryptography (24 lectures, 3rd year)
Combinatorics (16 lectures, Part 3, Prof. Thomason)
Ramsey Theory (16 lectures, Part 3, Prof. Leader)
Combinatorial Probability (16 lectures, Part 3, Prof. Bollobás)

Seminar Combinatorics (Thursdays at 2.30 p.m.)

UNIVERSITY OF CARDIFF
School of Computer Science Cardiff University, Queen's Buildings, Newport Road, PO Box 916, Cardiff CF24 3XF. Tel: 029 2087 4812 Fax: 029 2087 4598
http://www.cs.cardiff.ac.uk/
S.M. Allen* (mobile communications, frequency assignment, combinatorial optimisation, latin squares)
S. Hurley (mobile communications, frequency assignment, combinatorial optimisation)
R. Whitaker (mobile communications, frequency assignment, combinatorial optimisation, latin squares)

Lecture courses
Discrete mathematics I (1st year)
Discrete mathematics II (2nd year)
Information Security (3rd year)
Optimisation and Meta-Heuristics (3rd year)
Discrete mathematics (M.Sc.)

CITY UNIVERSITY LONDON
Faculty of Actuarial Science and Statistics Cass Business School, 106 Bunhill Row, London EC1Y 8TZ Tel: 020 7040 0140 Fax: 020 7040 8772
http://www.cass.city.ac.uk/facact
Prof. C. Glass*

UNIVERSITY OF DERBY
Derbyshire Business School Faculty of Business, Computing and Law, University of Derby, Kedleston Road, Derby DE22 1GB. Tel: 01332 591892
http://www.derby.ac.uk/dbs/

Dr. Peter J. Larcombe* (hypergeometric function theory, generating functions, binomial coefficient sums)

Research student: James Clapperton (Dr. Larcombe)

Lecture courses: None

Current periodicals: None

UNIVERSITY OF DUNDEE
School of Computing University of Dundee, Dundee DD1 4HN. Tel: 01382 384151 Fax: 01382 385509
http://www.computing.dundee.ac.uk
Dr. K.J. Edwards* (Graph colourings, graph decompositions, complexity)

Division of Mathematics University of Dundee, 23 Perth Road, Dundee DD1 4HN. Tel. 01382 384471 Fax 01382 385516
http://www.maths.dundee.ac.uk
Sands, Dr. Arthur (retired: Combinatorial problems on finite Abelian groups)

Research student F. Stewart (Dr. Edwards).

Lecture Courses: Information Theory and Cryptography (M.Sc.)

Current Periodicals: T, V, b, d

DURHAM UNIVERSITY
Department of Mathematical Sciences University of Durham, South Road, Durham DH1 3LE. Tel: 0191 374 2349 Fax: 0191 374 7388
http://www.maths.dur.ac.uk
Dr. N. Martin* (graph decompositions)

Department of Computer Science Science Laboratories, South Road, Durham DH1 3LE Tel: 0191 33 41700 Fax: 0191 33 41701
http://www.dur.ac.uk/computer.science
Dr. M. Bordewich (discrete mathematics, theoretical computer science)
Prof. H. Broersma (graph theory, computational complexity, telecommunications)
Dr. T. Friedetsky (algorithms)
Dr. M. Johnson (graph theory, combinatorial optimization, combinatorial designs)
Dr. A. Krokhin (combinatorics, homomorphisms, complexity)
Dr. D. Paulusma (graph theory, algorithms, complexity, game theory)
Prof. I.A. Stewart (graph theory and algorithms, computational complexity)
Dr. S. Szeider (combinatorics, satisfiability)

Research Staff
Dr Catarina Carvalho (constraint satisfaction, semigroup theory)
Dr Barnaby Martin (Computational complexity; finite model theory, proof complexity)

Research Students
Pim van 't Hof (exact algorithms for NP-hard problems: Dr. Paulusma)
Mark Rhodes (linear-programming based proof systems: Dr. Dantchev)
Yonghong Xiang (interconnection networks for parallel computing: Prof. Broersma and Prof. Stewart).

UNIVERSITY OF EAST ANGLIA, NORWICH
School of Mathematics University of East Anglia, Norwich NR4 7TJ. Tel: 01603 456161 Fax: 01603 259515
http://www.mth.uea.ac.uk
Prof. A.R. Camina (block designs, finite groups)
Dr. M. Džamonja (logic, set theory, infinite combinatorics)
Prof. D. M. Evans (permutation groups, automorphism groups of infinite structures)
Dr. S. Lyle (representation theory).
Dr. I. J. Siemons* (permutation groups, topological and homological methods)
Prof A.E. Zalesskii (group theory, ring theory)

Research students
Mr. S. Alder (simplicial geometries, Dr Siemons)
M. Ferreira (Dr. Evans)
Y. Lazou (Dr. Džamonja)

T. McKay (Dr. Siemons)
T. Phongpattanacharoen (reconstruction, Dr. Siemons)
J. De la Rue (model theory and infinite permutation groups, Dr. Evans)
F. Shaikh (model theory and set theory, Dr. Džamonja)
D. Smith (representations of linear groups and combinatorial applications, Dr. Siemons)
M. Wong (Dr. Evans)

Lecture courses (check availability):
Discrete Mathematics (2nd year)
Set theory (3rd year)
Infinite permutation groups (4th year, p/g)
Representation Theory (3rd year)
Graph theory (3rd year)
Group theory (3rd year)
Computability (3rd year)
Model theory (3rd year)

UNIVERSITY OF EDINBURGH
School of Informatics 2 Buccleuch Place, Edinburgh EH8 9LW Tel. 0131 650 2691
Fax: 0131 650 6626
http://www.inf.ed.ac.uk
Dr. Mary Cryan* (algorithms and complexity)

Research students
Paídí Creed (Dr. Cryan)
James Matthews (Dr. Cryan).

Lecture Courses
Algorithms and Data Structures (3rd year)
Computability and Intractability (3rd year, MSc)
Computational Complexity (4th year)

Current Periodicals: E, H, M, T, X, Y

UNIVERSITY OF ESSEX
Department of Mathematical Sciences University of Essex, Wivenhoe Park, Colchester CO4 3SQ. Tel: 01206 873040 Fax: 01206 873043
http://www.essex.ac.uk/maths
Dr. D. Branson (retired: applied probability, combinatorics of Stirling numbers)
Prof. P.M. Higgins (combinatorics of algebraic semigroup theory, cryptography)
Dr. David Penman* (random and pseudo-random graphs)
Dr. Chris Saker (combinatorics on words, semigroup theory, cryptography)
Dr. A. Salhi (combinatorial optimisation)
Dr. Alexei Vernitski (algebra, combinatorics, computer security)
Dr. Gerald Williams (computational group theory)

Research students

James Ashton (random and pseudo-random graphs, Dr. Penman: part-time)
Andria Eleftheriou (reliability of graphs (M.Phil), Dr. Penman: part-time)
Rong Gao (colourings of pseudo-random graphs, Dr. Penman)
Zsofia Juhasz (Dr. Vernitski)
Shane Malik (extremal Ramsey graphs, Dr. Penman)

Lecture Courses
Graph Theory (3rd year, Dr. Penman) (30 lectures)
Codes and Cryptography (Prof. Higgins, 3rd year) (30 lectures)
Combinatorial optimisation (Dr. Salhi, 3rd year) (30 lectures)

Current periodicals: H, P, h.

UNIVERSITY OF EXETER
Department of Mathematical Sciences University of Exeter, North Park Road, Exeter EX4 4QE. Tel: 01392 264464 Fax: 01392 263997
http://www.maths.ex.ac.uk/indexpage

Dr. R. J. Chapman* (finite fields,coding theory, enumerative combinatorics)
Dr. P. A. Firby (p/t) (distance and heterogeneity in graphs, applications to mathematical biology)
Prof. P. Vámos (representation of matroids)

Lecture courses
Discrete Mathematics (30 lectures, 1st year, Dr. Chapman)
Graph theory (33 lectures, 3rd year, Dr. Firby)
Coding Theory (33 lectures, 3rd year, Dr. Stratton)

Current periodicals: C, D, W

UNIVERSITY OF GLAMORGAN
Division of Mathematics and Statistics University of Glamorgan, Pontypridd, Mid Glamorgan CF37 1DL. Tel: 01443 482136 Fax: 01443 482711
http://www.glam.ac.uk/sot/709/mathematicsstatistics
Dr. S. Perkins (coding theory, synchronization)
Prof. D. H. Smith* (frequency assignment, network reliability, coding theory)

Lecture courses
Codes and Information (3rd year, Prof. Smith, Dr. Perkins)
Network flows and reliability (3rd year, Prof. Smith)
Combinatorics (2nd year, Dr. Perkins)

Current periodicals: J, N, T, X, Y, e. T is online only after Vol. 51. J only from 2004.

UNIVERSITY OF GLASGOW
Department of Mathematics University of Glasgow, University Gardens, Glasgow G12 8QW. Tel: 0141 330 5176 Fax: 0141 330 4111
http://www.maths.gla.ac.uk
Dr. I. Anderson* (designs, whist tournaments)

Dr. S.D. Cohen (application of finite fields)

Department of Computing Science 17 Lilybank Gardens, Glasgow G12 8QQ Tel: 0141 330 4256 Fax: 0141 330 4913
http://www.dcs.gla.ac.uk
Dr. R.W. Irving (combinatorial and graph algorithms)
Dr. D.F. Manlove (combinatorial and graph algorithms)

Research Staff Dr. Peter Biró

Research students
Gregg O'Malley (4th year, Dr. Manlove)
Eric McDermid (1st year, Dr. Irving)
Colin Sng (3rd year, Dr. Manlove)

Lecture courses
Designs and codes (25 lectures, 4th year, Dr. Anderson)
Discrete mathematics (24 lectures, 3rd year, Dr. R. Steiner)
Graphs and networks (22 lectures, 2nd year, Dr. W. Stothers)
Algorithmics 3 (3rd year, Dr. Irving)
Algorithmics 4 (4th year, Dr. Manlove)

Current periodicals: C, O, i (paper only)
E, F, V, b, h (paper and electronic)
M, N, P, Q, T, X, Y, c (electronic only).

GLASGOW CALEDONIAN UNIVERSITY
School of Computing and Mathematical Sciences Glasgow Caledonian University, Cowcaddens Road, Glasgow G4 0BA. Tel: 0141 331 3609 Fax: 0141 331 3005
http://www.gcal.ac.uk/cms
Dr. V. Jha* (finite geometries)

Current periodicals: none

GOLDSMITHS COLLEGE
Department of Computing Goldsmiths College, University of London, New Cross, London SE14 6NW. Tel: 0207 919 7850 Fax: 0207 919 7853
http://www.mcs.gold.ac.uk
Dr. I. Pu* (combinatorial algorithms, randomized, parallel, probabilistic and average case algorithmics)

Lecture courses
Discrete Mathematics (1st year)
Graph Theory (3rd year)
Data Structures and algorithms (2nd year, Dr. Pu)

Current Periodicals: X, Y, b

GOVERNMENT COMMUNICATIONS HEADQUARTERS
Priors Road, Cheltenham GL52 5AJ. Tel: 01242 221491 Fax: 01242 226816

C.C. Cocks (Chief Mathematician)
Dr. R.G.E. Pinch*

UNIVERSITY OF GREENWICH
School of Computing and Mathematical Sciences University of Greenwich, London, SE18 6PF Tel: 0208 316 8000 Fax: 0208 855 4033
http://cms1.gre.ac.uk
Prof. V.A. Strusevich (combinatorial optimization, scheduling theory)
Current Periodicals: T

HERIOT-WATT UNIVERSITY
Department of Mathematics Heriot-Watt University, Riccarton, Edinburgh EH14 4AS. Tel: 0131 451 3221 Fax: 0131 451 3249
http://www.ma.hw.ac.uk/maths.html
Dr. M.V.Lawson (semigroup theory, combinatorics on words)
Dr. A.R. Prince* (finite geometries, finite group theory)

Department of Actuarial Mathematics and Statistics Heriot-Watt University, Riccarton, Edinburgh EH14 4AS. Tel: 0131 451 3202 Fax: 0131 451 3249
http://www.ma.hw.ac.uk/ams.html
Dr. Jennie Hansen (probabilistic combinatorics)

Lecture course Discrete mathematics (45 lectures, 3rd year honours degree, Dr. Prince)

Current periodicals: E, F, I, c, g, h

UNIVERSITY OF HULL
Centre for Mathematics University of Hull, Cottingham Road, Hull HU6 7RX. Tel: 01482 465885 Fax: 01482 466218
http://www.hull.ac.uk/maths/
Prof. R. Shaw* (Emeritus, finite geometry)

Department of Computer Science University of Hull, Hull HU6 7RX Tel: 01482 465951/465067 Fax: 01482 466666
http://www.net.dcs.hull.ac.uk/
Dr. N.A. Gordon (465038) (finite geometry, computer algebra)

Research report series http://www.hull.ac.uk/php/masrs/

Current periodicals: J (electronic access only), T

IMPERIAL COLLEGE LONDON
Department of Mathematics Imperial College London, London SW7 2AZ. Tel: 0207 594 8517 Fax: 0207 594 8483

http://www.ma.ic.ac.uk
Prof. G.D. James
Prof. M. Liebeck
Dr. O. Pretzel

KEELE UNIVERSITY
Department of Mathematics Keele University, Keele, Staffordshire ST5 5BG. Tel: 01782 583258 Fax: 01782 584268
http://www.keele.ac.uk/depts/ma/maths.html
Dr. D. Bedford* (latin squares; designs)
Dr. J. Preater (applied probability, random graphs)
Mr. K. Walker (graphs)

Lecture courses
Graph theory (30 lectures, 3rd year, Dr. Bedford)
Discrete mathematics (30 lectures, 3rd year, Dr. Bedford)

Current periodicals: E, F, H, S, V, X, Y, b, h

UNIVERSITY OF KENT
Institute of Mathematics, Statistics and Actuarial Science Cornwallis Building, University of Kent, Canterbury, Kent CT2 7NF. Tel: 01227 827181 Fax: 01227 827932 http://www.kent.ac.uk/IMS/
Dr. G. D. Brown (toric geometry)
G.M. Clarke (non-orthogonal Graeco-Latin designs)
Prof. P. Fleischmann (algebraic combinatorics, root systems, Mobius function)
Dr. S. Launois (*q*-calculus)
Dr. R. E. Paget* (representation theory of symmetric groups, cellular algebras)
Prof. D. A. Preece (Graeco-Latin designs, nested BIBDs, single-change covering designs, neighbour designs)
Dr. R. J. Shank (modular invariant theory)
Dr. B. J. Vowden (Graeco-Latin designs)
Dr. C. F. Woodcock (orthogonal Latin squares)

Research students
Hamid Ahmedinezad (Dr. Brown).
Jonathan Elmer (Prof. Fleischmann)
Jorge Nélio Marques Ferreira (Prof. Fleischmann)
Ashley Hobson (Dr. Shank)
Claire Pollard (Prof. Fleischmann).

Lecture courses
Discrete mathematics (30 lectures, 3rd year, Dr. Woodcock)
Computational algebra (30 lectures, 3rd year, Prof. Fleischmann)

Current periodicals: E, F, T
(electronic access to A, B, H, J, L, M, N, P, Q, R, S, U, V, X, Y, Z, a, b, c, d, e, f, g)

KING'S COLLEGE LONDON
Department of Computer Science King's College, Strand, London, WC2R 2LS Tel 020 7848 2588 Fax: 020 7848 2851
http://www.dcs.kcl.ac.uk
Dr Colin Cooper* (random graphs, random algorithms)

KINGSTON UNIVERSITY
Faculty of Computing, Information Science and Mathematics Kingston University, Penrhyn Road, Kingston-upon-Thames, KT1 2EE
http://cism.kingston.ac.uk/sitemap/index.htm
Dr. Edward A. Evans
Dr. Gordon J. A. Hunter* (combinatorics)

UNIVERSITY OF LANCASTER
Department of Mathematics and Statistics Fylde College, University of Lancaster, Lancaster LA1 4YF. Tel: 01524 593960 Fax: 01524 592681
http://www.maths.lancs.ac.uk
Prof. A.G. Chetwynd* (combinatorial applications in statistics)
Current periodicals: E, F, T, Y, b, e

UNIVERSITY OF LEEDS
School of Mathematics University of Leeds, Leeds LS2 9JT. Tel: 0113 3435140 Fax: 0113 3435090.
http://amsta.leeds.ac.uk
Prof. S.B. Cooper (graph theory, Ramsey theory, finite set systems)
Dr. D. R. Gray (semigroups, automorphism groups of graphs, digraphs, partial orders).
Dr. V.V. Kisil (Applications of coherent states, wavelet transform and group representations in quantum mechanics, combinatorics, etc).
Prof. H.D. Macpherson* (permutation groups and related combinatorics)
Dr. Robert Marsh (quantum groups, algebraic groups, Lie algebras)
Prof. J.K. Truss (permutation groups, automorphisms of ordered structures)

School of Computing University of Leeds, Leeds LS6 2HN Tel. 0113 343 5430 Fax 0113 343 5468
http://www.scs.leeds.ac.uk
Prof. Martin Dyer (algorithms and complexity)
Dr. Haiko Muller (algorithms, graph theory)
Dr. Natasha Shakhlevic (deterministic scheduling theory, combinatorial optimisation, computational complexity)
Dr. Kristina Vuskovic (graph theory, algorithms and combinatorial optimisation)

Postdoctoral Researcher
Ton Kloks (graph theory and algorithms).

Research Students
Ragab Elageili (Prof. Truss)
Simon Rose (Prof. Truss)
David Knipe (automorphism groups of partial orders, Prof. Truss)
Feresiano Mwesigye (theories of linear orders, Prof. Truss)
Murilo V.G. da Silva (even-hole-free graphs, Dr. Vuskovic).
Pietro dello Stritto (model theory for generalised polygons and BN pairs, Prof. MacPherson)
Richard Marshall (model theory of finite structures, Prof. Macpherson)

Lecture courses
Introduction to Discrete Mathematics (22 lectures, 2nd year, Prof. Truss)
Graph theory (22 lectures, 3rd year, Prof. Cooper)
Combinatorics (22 lectures, 3rd year, Dr. Allenby)
Introduction to Algorithms
Theory of computation
Computational graph theory and complexity
Modern issues in algorithmic design

Working Paper series http://www.maths.leeds.ac.uk/Pure/preprints (Pure Mathematics)
and http://www.scs.leeds.ac.uk/research/pubs/reports.shtml (Computer Science)

Current periodicals: P, X, Y

UNIVERSITY OF LEICESTER
School of Mathematics and Computer Science University of Leicester, University Road, Leicester LE1 7RH. Tel: 0116 2523887 Fax: 0116 2523604
http://www.mcs.le.ac.uk
Dr. K. Baur (representation theory of Lie algebras, cluster categories, secant varieties, tropical geometry)
Dr. T. Erlebach (combinatorial optimization, approximation algorithms, algorithmic graph theory)
Prof. R.M. Thomas* (combinatorial group and semigroup theory, automata theory)

School of Psychology The University of Leicester, University Road, Leicester LE1 7RH, UK Tel: 0116 2522170
http://www.le.ac.uk/psychology
Dr. R.T. Gillett

Lecture courses
Logic and Discrete Structures (40 lectures, 1st year, Dr. de Vries)
Algorithms and Data Structures (30 lectures, 1st year, Dr. Schmitt)
Automata, Languages and Computation (30 lectures, 2nd year, Prof. Thomas)
Cryptography and Information Security (30 lectures, 3rd year, Dr. Fung)
Discrete Event Systems (24 lectures, M.Sc., Dr. Savani)
Game Theory in Computer Science (24 lectures, M.Sc., Dr. Savani).

Seminars There is a regular seminar program, see

http://www.cs.le.ac.uk/seminars/
http://www.math.le.ac.uk/RESEARCH/PURE/SEMINAR/
http://www.math.le.ac.uk/RESEARCH/APPLIED/SEMINAR/

Research Reports See (printed copies available on request)
http://www.mcs.le.ac.uk/research/publications
Current periodicals: E, F, M, N, T, X, Y (paper)
E, F, M, N, P, Q, R, T, U, X, Y, b, c, d, e, f, g, h (electronic)

UNIVERSITY OF LIVERPOOL
Department of Computer Science University of Liverpool, Ashton Building, Liverpool L69 3BX, United Kingdom. Tel. 0151 795 4276 Fax: 0151 795 4235.
http://www.csc.liv.ac.uk/
Dr. C. Ambuhl (combinatorial algorithms, networks, scheduling)
Prof. L.A. Goldberg* (combinatorial algorithms, complexity of counting and sampling)
Dr. P.W. Goldberg (algorithmic game theory)
Dr. P. Krysta (algorithmic game theory)
Dr. R. Martin (enumerative combinatorics)
Dr. P.W.H. Wong (combinatorial algorithms, scheduling, packing)
Dr. M. Zito (algorithms and complexity, random structures)

Research Students
Markus Jalsenius (Markov chain algorithms, Prof L. Goldberg)
Andrew McGrae (colouring, random graphs, Dr Zito)
Kasper Pedersen (Markov chain algorithms, Prof. L. Goldberg)
Patarawit Polpinit (algorithmic game theory, Dr P. Goldberg)

Lecture courses:
Comp108 Algorithmic Foundations (1st year)
Comp202 Complexity of Algorithms (2nd year)
Comp308 Efficient Parallel Algorithms (3rd year)
Comp309 Efficient Sequential Algorithms (3rd year)
Comp523 Advanced Algorithmic Techniques (M.Sc.)
Comp526 Applied Algorithmics (M.Sc.)

Seminar:
Complexity Theory and Algorithmics Seminar, Thursdays 3:15.

LONDON SCHOOL OF ECONOMICS
Department of Mathematics London School of Economics, Houghton Street, London WC2A 2AE. Tel: 0207 955 7732 Fax: 0207 955 6877
http://www.maths.lse.ac.uk
Prof. Steve Alpern (ergodic theory, game theory, search theory)
Prof. Martin Anthony (computational learning theory, neural networks, theory of computing)
Dr. Tugkan Batu (randomized computation, algorithms on massive data sets, property testing, statistical testing, streaming algorithms)
Prof. Norman Biggs (algebraic graph theory, history of combinatorics, applications in

physics and finance)
Prof. Graham Brightwell* (partially ordered sets, random structures)
Prof. Jan van den Heuvel (graph theory, discrete mathematics, applications)
Dr. Malwina Luczak (probability and discrete mathematics)
Dr. Jozef Skokan (quasi-randomness, applications of the regularity lemma, numbers in Ramsey theory)
Prof. Bernhard von Stengel (game theory and complexity)

Department of Operational Research London School of Economics, Houghton Street, London WC2A 2AE Tel: 0207 955 7653 Fax: 0207 955 6855
http://www.lse.ac.uk/collections/operationalResearch
Prof. Gautam Appa (orthogonal latin squares, mixed integer programming, robust regression)
Dr. Susan Powell (mathematical programming and combinatorial optimization, operational research)
Prof. Paul Williams (linear and integer programming)

Research students
Peter Allen
Viresh Patel
Luis Cereceda
Raju Chinthalapti
Marianne Fairthorne
Rahul Savani

Research Reports http://www.cdam.lse.ac.uk/Reports/ Details and reports can be requested from Jackie Everid, (info@maths.lse.ac.uk, 0207 955 7732)

Lecture courses
Discrete Mathematics (20 lectures, 3rd year, Dr. Simon)
Combinatorial Optimization (20 lectures, M.Sc., Prof. Appa)
Theory of Algorithms (20 lectures, 3rd year, Prof. von Stengel)
Computational Learning Theory and Neural Networks (20 lectures, M.Sc., Prof. Anthony)
Algorithms and Computation (20 lectures, M.Sc., Prof. von Stengel)
Discrete Mathematics and Complexity (20 lectures, M.Sc., Prof. van den Heuvel)
Information, Communication and Cryptography (20 lectures, M.Sc., Prof. Biggs)

Seminars Seminar on Discrete and Applicable Mathematics, Thursdays 2:00 (Dr. Luczak) CDAM Informal Workshop, Fridays 4:00 (Dr. Simon).

LONDON SOUTH BANK UNIVERSITY
Faculty of Business, Computing and Information Management B.C.I.M., London South Bank University, 103 Borough Road, London SE1 0AA. Tel: 0207 928 8989 Fax: 0207 815 7793
http://www.lsbu.ac.uk/bcim
Dr. Sylvia Jennings (coding theory, text compression)
Dr. Carrie Rutherford (matroid theory)
Prof. Robin Whitty* (Graph theoretical modelling of human memory)

Visiting Professor: David Singmaster (recreational mathematics)

Lecture courses
Discrete mathematics occurs in the first year of all the computing courses (Dr. Jennings, Dr. Rutherford, Prof. Whitty).
Applications of combinatorics appear in 1st and 2nd year courses in financial mathematics (Dr. Rutherford)
Option in Applied Cryptography occurs in the final year (Dr. Jennings)
Option in Theory of Computation occurs in the final year.

Working Paper Series http://myweb.lsbu.ac.uk/~whitty/MathsStudyGroup

Current periodicals: T

UNIVERSITY OF MANCHESTER
School of Mathematics University of Manchester, Oxford Road, Manchester M13 9PL. Tel: 0161 275 5800 Fax: 0161 275 5819
http://www.manchester.ac.uk/maths/
Prof. A.V. Borovik (matroids and generalisations, Coxeter matroids, Coxeter groups)
Prof. R.M. Bryant (groups and Lie algebras)
Prof. P.J. Laycock (emeritus: experimental design)
Prof. J. Paris (logic, including interactions with combinatorics)
Prof. N. Ray* (umbral calculus, chromatic polynomials, posets of partitions and permutations, permutation matrices, Hopf algebras and quantum structures, Toric varieties and polytopes)
Prof. P.J. Rowley (group theory)
Dr. R. Sandling (block designs)
Dr. G. Walker (modular representation theory, symmetric functions, Schur functions, partitions, Young tableaux, pictures)

Lecture courses
Discrete mathematics (24 lectures, 2nd year, Dr. Mark Muldoon)
Combinatorics and Number Theory (24 lectures, 3rd year, Dr. Gabor Megyesi)
Coding theory (24 lectures, 3rd year, Dr. Peter Symonds)
Mathematical Programming (24 lectures, 3rd year, Dr. Mike Tso)
Knot Theory (24 lectures, 3rd year, Prof. Ray)
Computational Complexity (24 lectures, 3rd /4th year, Prof. Paris).

Current periodicals: C,D,E,F,K,L,P,R,S,N,U,X,Y

MIDDLESEX UNIVERSITY
Economics and Statistics Department Middlesex University Business School, The Burroughs, London, NW4 4BT Tel: 020 8411 6824
http://mubs.mdx.ac.uk/Subjects/Mathematics
Dr Thomas D. Bending* (Bent functions; finite geometries; lotteries).
David F. Jarrett (Graph Theory applied to traffic modelling)

Lecture Courses
Models in Management Science (M. Sc.)

Current Periodicals: F, V, b, e (all available both on paper and electronically).

UNIVERSITY OF NEWCASTLE UPON TYNE
School of Mathematics and Statistics Newcastle University, Newcastle upon Tyne NE1 7RU. Tel: 0191 222 6000 Fax: 0191 222 8020
http://www.ncl.ac.uk/math/
Dr. J.R. Britnell (finite classical groups, cycle index methods for matrix groups, pairwise generating sets for finite 2-generator groups)
Dr. A.J. Duncan (combinatorial group theory, one-relator products of groups, decision problems and equations over presentations of groups)
Dr. O.H. King* (subgroup structure of classical groups, finite geometry)
Prof. S. Rees (algorithms in group theory and geometry, automatic groups and related classes of groups, connections between group theory and formal language theory)
Dr. Alina Vdovina (geometric group theory, noncommutative geometry, knot theory, Riemannian geometry)

Lecture courses
Enumeration and Combinatorics (24 lectures, 2nd year, Dr. Duncan)
Graph Theory (24 lectures, 2nd/3rd/4th years, alternate years, Dr. Duncan)
Geometries and Designs (24 lectures, 3rd year, Dr. King)
Coding Theory (24 lectures, 3rd year, Dr. Britnell).

Current periodicals: A, B, F, H, I, J, L, M, N, P, Q, R, S, T, U, V, X, Y, a, c, d, e, f, g. These are mostly electronic access only, but F, P, R, T, U, X, c, d are paper-access too.

UNIVERSITY OF NOTTINGHAM
School of Mathematical Sciences University of Nottingham, University Park, Nottingham NG7 2RD. Tel: 0115 951 4949 Fax: 0115 951 4951
http://www.maths.nottingham.ac.uk
Dr. D.R. Woodall* (graph colourings, chromatic polynomials, electoral systems)

Research students A.R. Philpotts (Dr. Woodall)

Lecture courses
Introductory Graph Theory (30 lectures, 3rd yr, Dr. Diamantis)
Combinatorics (30 lectures, 3rd year, Prof. Hoffmann)
Coding and cryptography (30 lectures, 3rd year, Dr. Wuthrich)

Current periodicals: none

THE OPEN UNIVERSITY
Department of Mathematics and Statistics The Open University, Walton Hall, Milton Keynes MK7 6AA. Tel: 01908 653479 Fax: 01908 653744
http://www.mathematics.open.ac.uk/
Dr. K. M. Chicot (infinite combinatorics)

Prof. M. J. Grannell (combinatorial design theory, combinatorial computing, Steiner systems)
Prof. T. S. Griggs (combinatorial design theory, combinatorial computing, Steiner systems)
Dr. U. Grimm (enumerative combinatorics, words, tilings, applications to physics)
Dr. F. C. Holroyd (fractional graph colourings, graceful and related tree labellings, Erdős-Ko-Rado properties of graphs)
Dr. K. A. S. Quinn* (designs and their applications)
Dr. C. A. Rowley (design of experiments, problems in document science)
B. Sing (enumerative combinatorics, aperiodic tilings, applications to physics)
Prof . J. Širáň (topological graph theory, Cayley graphs)
Dr. B. S. Webb (automorphisms of designs, Latin squares, infinite designs)
Prof. R.J . Wilson (history of graph theory and combinatorics, graph colourings)

Department of Design, DPP, Environment and Mechanical Engineering, Faculty of Mathematics, Computing and Technology'.
aculty of Technology The Open University, Walton Hall, Milton Keynes MK7 6AA.
Tel. 01908 652944 Fax 01908 654052
http://technology.open.ac.uk
Dr. A. K. Dolan (networks)
Dr. J. H. Johnson (networks, complex systems, computer vision, transportation systems)
Dr. J. Rooney (robotics, kinematic geometry, Clifford algebras, differential geometry, screw theory, tensegrity structures)

Department of Physics and Astronomy Faculty of Science, The Open University, Walton Hall, Milton Keynes MK7 6AA.
http://physics.open.ac.uk/
Prof. A. I. Solomon (combinatorial physics, integer sequences)

Visiting research fellow Dr. A.D. Forbes (combinatorial designs)

Research students
M. Heuer (combinatorial aspects of sequences and tilings: Dr. Grimm, Prof. Baake (University of Bielefeld) and Dr. Umerski (Open University)).
J. D. Hobbs (mechanical space systems, reconfigurable structures: Dr. Rooney: part-time).
G. J. Lovegrove (automorphisms of designs: Prof. Grannell, Prof. Griggs and Dr. Quinn:
part-time)
D. Parks (graph theory in America, 1860-1940: Prof. Wilson: part-time)
I. Watts (graph homomorphisms, generalisations of graph colourings: Dr. Holroyd: part-time)

Courses M336: Groups and Geometry (3rd year)
MT365: Graphs, networks and design (3rd year)
M836: Coding Theory (M.Sc.).

Current periodicals: A, C, D, E, F, H, J, N, P, S, V, W, X, Y, b, i.

UNIVERSITY OF OXFORD

The Mathematical Institute 24-29 St. Giles, Oxford OX1 3LB. Tel: 01865 273525
Fax: 01865 273583
http://www.maths.ox.ac.uk
Dr. R. Leese (channel assignment problems)
Prof. Oliver Riordan (combinatorics, graph theory)
Prof. Alex Scott (combinatorics, graph theory)
Prof. D. J. A. Welsh (applied probability, complexity)

Department of Statistics 1 South Parks Road, Oxford OX1 3TG. Tel: 01865 272860
Fax: 01865 272595
http://www.stats.ox.ac.uk
Dr. Louigi Addario-Berry (combinatorics)
Prof. C. J. H. McDiarmid* (probability and algorithms, probabilistic methods in combinatorics, colouring problems)
Dr. James Martin (probability theory, links to statistical physics and theoretical computer science)
Prof. Gesine Reinert (network statistics (including small world graphs), applied probability).

Computing Laboratory Wolfson Building, Parks Road, Oxford OX1 3QD Tel: 01865 73838 Fax: 01856 73839
http://web.comlab.ox.ac.uk/oucl/
Dr Raphael Hauser (continuous optimization, applied probability).
Dr. Stephan Kreutzer (computational logic, logic and graph theory, finite model theory, graph searching games, verification and verification games, model checking, database theory).

Research students
Christopher Dowden (Prof. McDiarmid)
Hiu Fai Law (Prof. Scott)
Ross Kang (Prof. McDiarmid)
Kaisheng Lin (Prof Reinert)
Tobias Mueller (Prof McDiarmid)
Tom Rackham (Prof. Scott)
Bilyana Shoilkova (Prof. McDiarmid)
Atsushi Tateno (Prof. Scott)
Matthew White (Prof. Scott).

Lecture courses
Combinatorial optimisation (16 lectures, 2nd year, Prof. McDiarmid)
Communication theory (16 lectures, 3rd year, Dr. Stirzaker)
Integer programming (16 lectures, 3rd year, Dr. Hauser)
Graph Theory (16 lectures, 4th year, Prof. Scott)
Probabilistic Combinatorics (16 lectures, 4th year, Dr. Martin)
Percolation (16 lectures, 4th year and postgraduate, Prof. Riordan).

Seminar Combinatorial theory (Tuesdays at 2.30 p.m.)

Current periodicals: D, E, J, K, L, N, P, Q, T, Y

UNIVERSITY OF PORTSMOUTH
Department of Mathematics Buckingham Building, Lion Terrace, Portsmouth, Hampshire PO1 3HE Tel: 023 9284 6367 Fax: 023 9284 6364
http://www.port.ac.uk/departments/academic/maths
Dr. A. Makroglou*

Current periodicals: X, Y, b

QUEEN MARY, UNIVERSITY OF LONDON
School of Mathematical Sciences *(Mathematics Research Centre)* Queen Mary, University of London, Mile End Road, London E1 4NS. Tel: 0207 975 5440 Fax: 0208 980 9587
http://www.maths.qmul.ac.uk/
Prof. D. K. Arrowsmith (graph colourings, percolation theory, interaction models and knot invariants)
Prof. R. A. Bailey (design of experiments,latin squares and their generalisations, designs for complicated block structures, association schemes, partition species)
Dr. J. N. Bray (group theory)
Prof. P. J. Cameron* (groups and their operands, graphs, codes, designs, models, orbits and enumeration)
Prof. Bill Jackson (graph theory)
Prof. Mark Jerrum (computational complexity, probabilistic computation, the complexity of combinatorial enumeration)
Dr. J. R. Johnson (graph theory and combinatorics)
Dr. P. Keevash (extremal set systems)
Prof. Thomas Müller (group theory, combinatorics, analysis)
Dr. T. Prellberg (statistical mechanics, dynamics, enumerative combinatorics)
Dr. L. H. Soicher (computational group theory, graph theory, finite geometry, design theory)
Dr. D. S. Stark (probability and combinatorics)
Dr. M. Walters (probabilistic combinatorics)
Prof. R. A. Wilson (computational group theory)

Researchers
Dr. John Arhin (existence and structure of SOMAS).
Prof. Anthony Hilton (Professorial fellow: graph theory, design theory, finite set systems)
Prof. Dan Hughes (Emeritus Professor: finite geometry)
Dr Koko Kayibi (graph and matroid polynomials)
Dr Mike Newman (research fellow: algebraic combinatorics, quantum computing)
Prof. Donald Preece (Professorial fellow: design theory)
Dr. Sam Tarzi (graph theory)

Research students
Fatma Al-Kharoosi (coding theory, Prof. Cameron)
Josephine Kusuma (coding theory, Prof. Cameron)
Debbie Lockett (homogeneous structures, Prof. Cameron)

Rebecca Lodwick (crossover trials, Prof. Bailey)
Federico Montecalvo (covering designs, Prof. Cameron)
Jason Rudd (graph and matroid polynomials, Prof. Cameron)
Adam Watson (graph theory, matroid theory, rigidity, Prof. Jackson)
Taoyang Wu (Network coding, Dr. Riis/Prof. Cameron)
Emil Vaughan (graph theory and statistics, Prof. Cameron)

Lecture courses
Graph Theory and Applications (36 lectures, 2nd year, Prof. Jackson)
Combinatorics (36 lectures, 3rd year, Prof. Jackson)
Coding Theory (36 lectures, 3rd year, Prof. Jerrum)
Cryptography (36 lectures, 3rd year, Prof. Wilson)
Enumerative and Asymptotic Combinatorics (24 lectures, M.Sc., Prof. Müller)
Projective and Polar Spaces (24 lectures, M.Sc., Prof. Cameron)

Seminars Combinatorics study group (Prof. Cameron, Fridays 4:30pm)
Design of Experiments (Dr. Coad, Thursday 4:30pm)
Pure Mathematics (Dr. Johnson, Monday 4:30pm)

Current periodicals: B, E, F, H, P, R, T, U, X, Y, g

UNIVERSITY OF READING
Department of Mathematics University of Reading, Whiteknights, P.O. Box 220 Reading, Berks RG6 6AX. Tel: 0118 378 8996 Fax: 0118 931 3423
http://www.extra.rdg.ac.uk/Maths/index.asp
Dr. J. K. Dugdale (graph theory)
Prof. A. J. W. Hilton* (graph theory, design theory, finite set systems)
Dr.W. R. Johnstone (graph theory)
Dr. D. S. G. Stirling (graph theory)

Honorary fellow Dr. D. C. Daykin

Research Students Claire Spencer (extremal finite set theory: Prof. Hilton)

Lecture courses
Combinatorics (20 lectures, 1st year, Dr Dugdale)
Combinatorics (40 lectures, 3rd year, Dr. Dugdale, Prof. Hilton)
Graph theory (40 lectures, 3rd year, Dr. Dugdale, Prof. Hilton)
Combinatorics (20 lectures, 3rd year, Prof. Hilton)

Research seminar Combinatorics seminar (Mondays at 3 p.m.)
Current periodicals: C, N, P, S, X, Y, b

ROTHAMSTED EXPERIMENTAL STATION
Biomathematics Unit IACR - Rothamsted, Harpenden, Herts AL5 5RJ Tel: 01582 763133 Fax: 01582 4671166
http://www.rothamsted.bbsrc.ac.uk
Prof. R.W. Payne* (Statistical computing, design and analysis of experiments, identification keys and diagnostic tables, statistical modelling)

Sue Welham (REML estimation of various components, neighbour effects, design of laboratory experiments, statistical modelling)

C*urrent periodicals*: E, F

ROYAL HOLLOWAY, UNIVERSITY OF LONDON
Department of Mathematics Royal Holloway, Egham Hill, Egham, Surrey TW20 0EX. Tel: 01784 443093 Fax: 01784 430766
http://www.ma.rhul.ac.uk
Prof. S. Blackburn (enumeration of groups, applications of algebraic methods to data communications, coding theory, cryptography)
Dr. C. Cid (cryptography, security, computational algebra)
Dr. R.M. Damerell (algebraic combinatorics, computing applications)
Dr. C. Elsholtz* (combinatorial number theory, prime numbers)
Prof. J.W. Essam (applications of graph theory, combinatorics, numerical analysis and computing techniques to problems in critical phenomena theory, in particular to phase transitions, conduction in disordered materials, polymer science, epidemic models and cellular automata)
Dr. S. Gerke (graph theory, combinatorics, random structures and algorithms)
Dr. B. Klopsch (group theory, additive combinatorics)
Dr. K.M. Martin (cryptography and information security)
Prof. C. Mitchell (cryptography and information security)
Prof. S.P. Murphy (spatial probability, cryptography)
Dr. C.W. Norman (algebraic topics)
Prof. K. Paterson (cryptography and coding)
Prof. F.C. Piper (algebraic combinatorics: finite geometry, theory of designs, coding theory, cryptography)
Prof. P.R. Wild (algebraic combinatorics: designs and difference sets, statistical applications, applications of discrete mathematics to data communications, coding theory, cryptography)

Visiting Professors Prof. N. Stephens, Prof. M. Walker (Vodafone Ltd).

Postdoctoral Researcher Dr. M. B. Paterson

Department of Computer Science Royal Holloway, Egham Hill, Egham, Surrey TW20 0EX. Tel: 01784 443421 Fax: 01784 443420
http://www.cs.rhul.ac.uk
Prof. D. Cohen (constraint satisfaction, graphs and hypergraphs)
Prof. Z.G. Gutin (graphs and combinatorics, combinatorial optimisation)
Dr. A Yeo (graphs and combinatorics, combinatorial optimisation)

Research students
M. Albrecht (algebraic aspects of cryptography: Dr. Cid)
D. Appel (group theory: Dr. Klopsch)
J. Birkett (security, asymmetric cryptography: Dr. Dent).
L. Chen (Role-Based Access Control: Dr. Crampton)
J. Cho (key management, secure protocol design for mobile communications:)
R. Hughes-Jones (combinatorics, Prof. Blackburn)
D. Karapateyan (Prof. Gutin)

Eun Jung Kim (Prof. Gutin)
D. Mireles Morales (abelian varieties, algorithmic number theory, applications in cryptography: Dr. Galbraith)
J. Novak (formerly J. Bate) (combinatorial key management techniques: Dr. Martin).
R. S. Ruprai (elliptic curves, Dr. Galbraith)
A Soleimanfallah
S Srinivasan (cryptography, network security, provable security: Prof. Paterson)
L. O'Toole (DES, MARS, feistel networks)
T. Page (hash structures: Dr. Martin)
L. Rackham (combinatorial number theory. Dr. Elsholtz).
M.J. Saarinen (theoretical and engineering aspects of computer security)
L. Stringer (combinatorics and group theory: Prof. Blackburn).

Lecture courses
Discrete mathematics (33 lectures, 2nd year, Dr. Elsholtz)
Algorithmic Graph Theory (33 lectures, 3rd year, Dr. J. F. McKee)
Error correcting codes (33 lectures, 3rd year, Prof. Blackburn)
Combinatorics (33 lectures, 4th year, Dr. Gerke)
Public Key Cryptography (33 lectures, 4th year, Dr. S. Galbraith)

The Department of Mathematics runs taught M.Sc. programmes in Information Security, Mathematics of Cryptography and Communications, and Mathematics for Applications.

Seminars Pure Maths Seminar (Dr. Elsholtz) (Tuesdays at 4.00 p.m. in room 219).

Current periodicals: E, F, H, J, M, N, P, S, T, X, b, h (all available hard copy, some also available electronically).

UNIVERSITY OF ST. ANDREWS
School of Mathematics and Statistics The Mathematical Institute, North Haugh, St. Andrews, Fife KY16 9SS. Tel: 01334 463745 Fax: 01334 463748
http://www.mcs.st-and.ac.uk
Dr. A.J.Cain (combinatorial semigroup theory and automatic structures)
Dr. C.M. Campbell (combinatorial group theory, combinatorics of semigroup presentations)
R.L. Constable (combinatorics)
Prof. K.J. Falconer (combinatorial geometry)
Dr. S. Huczynska (Applications of finite fields, permutation arrays, combinatorial designs)
Dr. D. Kahrobaei (graph theory and combinatorics)
Dr. A.W. Kemp (combinatorial applications in statistics)
Prof. C.D. Kemp (combinatorial applications in statistics)
Dr. J.H. McCabe (graph theory, number theory)
Dr. J. D. Mitchell (combinatorial and topological aspects of group and semigroup theory)
Dr. J.J. O'Connor (combinatorial group theory)
Dr. L. Olsen (analysis and combinatorics)
Dr. M. R. Quick (group theory)
Prof. E.F. Robertson (combinatorial group theory, combinatorics of semigroup

presentations)
Dr. C. M. Roney-Dougal* (finite permutation and matrix groups, computational group theory, constraint programming).
Prof. N. Ruškuc (combinatorics of words, mappings, permutations: combinatorial semigroup theory)
Dr. B.O. Stratmann (combinatorial group theory, Kleinian groups)
Dr. V. Vatter (enumerative and algebraic combinatorics)

School of Computer Science North Haugh, St Andrews, Fife KY16 9SS.
Tel: 01334 463253 Fax: 01334 463278
http://www.dcs.st-and.ac.uk
Prof. S.A. Linton (computational algebra: systems, algorithms and applications)

Research Students
Mr. B. U. M. Assmann (design and implementation of algorithms for infinite groups: Prof. Linton).
Mr J. M.Bagnall (finiteness problems in groups and semigroups: Dr. Quick and Prof. Ruškuc)
Mr R. L .F.Brignall (algebraic combinatorics: Prof. Ruškuc)
Miss F. T. Brunk (combinatorics: Dr. Huczynska and Prof. Ruškuc).
Mr A. M. H. Connelly
Miss H. J. Coutts (primitive groups: Dr. Quick and Dr. Roney-Dougal)
Mr A. Distler
Mr M. R.Hille (Kleinian groups, Teichmuller theory etc:
Mr V.Maltcev (semigroup theory: Dr. Mitchell and Prof. Ruškuc)
Ms S. A. Munday
Mr Y. H. Peresse (generation of groups and semigroups: Dr. Mitchell and Dr. Quick).
Mr A. J. Samuel (Noncommutative aspects of affine self-similar fractal sets: Dr. Stratmann)
Miss N. Snigireva

Lecture courses
Discrete mathematics (56 lectures, 2nd year)
Finite mathematics (24 lectures, 3rd/4th year, alternate years)
Graphs (24 lectures, 3rd/4th year, alternate years)
Various courses involving algorithms and complexity at 3rd/4th year level.

Seminars Pure Mathematics Colloquium 4pm Thursdays
Algebra and Combinatorics Seminar 4pm Wednesdays

Current periodicals: B, E, F, f are available on paper. Available only electronically are the following: A, H, J, L, M, N, P, Q, R, S, U, V, X, Y, Z, a, b, c, d, e, g.

UNIVERSITY OF SALFORD
Mathematics Section, School of Computing, Science and Engineering University of Salford, Salford M5 4WT. Tel: 0161 295 4635
http://www.cse.salford.ac.uk
Prof. R. Hill* (coding theory, finite geometry)
Current periodicals: J, P, T, h

UNIVERSITY OF SOUTHAMPTON
School of Mathematics University of Southampton, Southampton SO17 1BJ. Tel: 023 8059 3612 Fax: 023 8059 5147
http://www.maths.soton.ac.uk
Prof. G. A. Jones (permutation groups, connections between groups and graphs)
Prof. R. C. King (representations theory of Lie algebra and superalgebras, applications in Physics)
Dr. E. K. Lloyd* (combinatorics and graph theory including applications and history)
Prof. C. N. Potts (combinatorial optimization and scheduling)
Prof. D. Singerman (discontinous groups with applications to Riemann surfaces and the theory of maps)

School of Electronics and Computer Science
http://www.ecs.soton.ac.uk
Prof. J. Shawe-Taylor

Department of Management 023 8059 3966
http://www.management.soton.ac.uk
Dr. Julia A. Bennell

Research student Anton Prowse (Prof. Jones)

Lecture courses
Combinatorics and Graph theory (13 lectures, 1st year, Dr. Ann Hirst)
Theory of numbers (36 lectures, 3rd/4th year, Dr. Mary Jones)
Scheduling (10 lectures, M.Sc., Prof. Potts)
Algorithms (36 lectures, 2nd year, Prof. Jones)
Information and coding Theory (36 lectures, 3rd year, Prof. Jones)
Algorithms, machines and languages (36 lectures, 3rd/4th year, Prof. Jones)
Finite Mathematics (36 lectures, 3rd /4th year, Dr. Jim Renshaw)
Graph Theory (36 lectures, 3rd/4th year, Dr. Renshaw)

Current periodicals: A, C, E, F, M, N, P, R, T, X, Y

STAFFORDSHIRE UNIVERSITY
Division of Mathematics and Statistics School of Computing, Staffordshire University, Leek Road, Stoke-on-Trent, ST4 2AZ. Tel/Fax: 01782 294026
http://www.soc.staffs.ac.uk
Prof. Brian Burrows
Dr. Sarah Easton*
Mr. Fred Pratt

UNIVERSITY OF STIRLING
Mathematics and Statistics Group, Department of Computing Science & Mathematics The University of Stirling, Dept. of Computing Science and Mathematics, Stirling, Scotland FK9 4LA. Tel: 01786 467460 Fax: 01786 464551
http://www.cs.stir.ac.uk/maths/
Dr. P.S. Jackson (algebraic graph theory)
Emeritus Prof. P. Rowlinson* (algebraic graph theory)

Lecture courses
Discrete structures (44 lectures, 1st year)
Combinatorics (32 lectures, 3rd/4th year, alternate years)
Algebra and codes (32 lectures, 3rd/4th year, alternate years)

Current periodicals: C, F, H, V, Y, b

UNIVERSITY OF SURREY
Department of Mathematics and Statistics University of Surrey, Guildford, Surrey GU2 7XH. Tel: 01483 300800 Fax: 01483 686071
http://www.maths.surrey.ac.uk
Honorary Visiting Senior Research Fellow Dr. A.D. Keedwell* (Latin squares and quasigroups, finite projective planes, coding theory)

Lecture courses
Groups and symmetry (30 lectures, 2nd year, Prof. M. Roberts)
Algorithms and data structures (24 lectures, 2nd year, Mr Bish)
Algebra and Codes (30 lectures, 2nd year, Dr. D. Fisher)
Galois theory (3rd year, 30 lectures, Dr. D. Fisher)
Experimental design (30 lectures, 2nd year, Dr E. J. Godolphin)

Current periodicals: C, E, F, i (paper), T (electronic).

UNIVERSITY OF SUSSEX
Department of Mathematics Mantell Building, University of Sussex, Falmer, Brighton, East Sussex BN1 9RF. Tel: 01273 877345 Fax: 01273 678097
http://www.sussex.ac.uk/maths
Prof. J.W.P. Hirschfeld* (finite geometry, algebraic geometry, coding theory)

Lecture courses
Algebra and its Applications I (30 lectures, 3rd/4th year, Dr. Fenn)
Algebra and its Applications II (36 lectures, 3rd/4th year, Prof. Hirschfeld)

Research reports http://www.sussex.ac.uk/maths/1-4-1.html.

Current periodicals: c

SWANSEA UNIVERSITY
Mathematics Department Swansea University, Singleton Park, Swansea SA2 8PP
Tel: 01792 295457 Fax: 01792 295843
http://www-maths.swan.ac.uk
Dr. F. W. Clarke
Dr. A.D. Thomas

Lecture courses
Combinatorics (20 lectures, 3rd year)
Applied algebra (40 lectures, 3rd year, Dr. Clarke)

UNIVERSITY COLLEGE LONDON
Department of Mathematics University College London, Gower Street, London WC1E 6BT. Tel: 020 7679 2839 Fax: 020 7383 5519
http://www.ucl.ac.uk/Mathematics
Prof. K.M. Ball (convex and discrete geometry, functional analysis)
Prof. I. Bárány (convex geometry, geometry of numbers, theory of integer programming)
Prof. M. Csőrnyei (real analysis)
Dr. J.A. Haight (combinatorial number theory, measure theory, ramsey theory, logic)
Prof. M. Laczkovich (real analysis)
Prof. D.G. Larman (geometric analysis, combinatorics)
Prof. P. McMullen (emeritus: convexity, regular polytopes)
Prof. A.Sokal (combinatorial aspects of mathematical physics)
Dr. J. Talbot* (combinatorics, complexity theory)

Department of Economics University College London, Gower Street, London WC1E 6BT Tel: 020 7679 5888 Fax: 020 7916 2775
http://www.econ.ucl.ac.uk
Prof. K. Binmore (game theory)

Research students
Natalia Garcia-Colin (convex geometry/ combinatorics: Prof. Larman)
Maria Prodromou (combinatorial properties of convex and discrete sets: Prof. Bárány)
Rahil Baber (combinatorics, Dr. Talbot)

Lecture courses
Optimisation (2nd year)
Graph Theory and Combinatorics (3rd year)
Geometry of numbers (3rd year, Prof. Larman)
Computational Geometry (3rd year, Prof. McMullen)
Game theory (3rd year, Prof. Binmore)

Seminar Colloquium (Tuesdays at 4.00 p.m.)
Informal Seminar (Wednesdays at 4.30pm)

VODAFONE GROUP RESEARCH AND DEVELOPMENT - UK
Vodafone House, 1 The Connection, Newbury RG14 2FN. Tel: 01635 33251 Fax: 01635 31127
http://www.vodafone-rnd.com/whoweare/uk.htm
Dr. S. Babbage*
Dr. C. Belrose
Dr. N. Bone
Dr. N. Jefferies
S. Manning
Dr. S. Thiel
Prof. M. Walker
R. Wright

The group is interested in cryptography, randomness, statistics, applications of graph

theory and combinatorics.

Current periodicals: G, T, Z

UNIVERSITY OF WARWICK
Coventry, CV4 7AL

Department of Computer Science Tel: 0247652 3193 Fax: 024 7657 3024
http://www.dcs.warwick.ac.uk/
Prof. Artur Czumaj (analysis and design of algorithms and data structures, randomized algorithms, graph
game theory)
Dr. Marcin Jurdzinski (algorithmic game theory, logic in computer science, optimization, modelling and
algorithmic analysis of systems)
Dr. Oded Lachish (coding theory, circuit complexity, sublinear algorithms)
Dr. Rajagopal Nagarajan (quantum information processing, security and cryptography)
Prof. Mike Paterson* (computational complexity, analysis and design of algorithms)
Dr. Harald Raecke (algorithms, network algorithms).
Dr. Rahul Savani (game theory)
Dr. Alex Tiskin (discrete mathematics, parallel computation, combinatorial optimization).

Warwick Business School Tel. 024 7652 8220 Fax: 024 7652 4539
http://www.wbs.ac.uk
Prof. Bo Chen (scheduling theory and applications; real-time optimisation; combinatorial optimisation;
decision analysis)
Dr. Vladimir Deineko (combinatorial optimisation, polynomially solvable cases of NP-hard problems)
Dr. Arie Koster (combinatorial optimisation, polyhedral combinatorics, network design, fixed-parameter
tractable algorithms).

Warwick Mathematics Institute Tel. 024 7652 4661 Fax: 024 7652 4182.
http://www.maths.warwick.ac.uk
Dr. Vadim Lozin (algorithmic and structural graph theory)

Research Students
Haris Aziz (algorithmic voting theory, Prof. Paterson)
Tim Davidson (quantum protocols, Dr. Nagarajan)
Peter Krusche(efficient parallel processing, Dr. Tiskin)
Nick Palmer (machine learning, Prof. Paterson)
Nikolaos Papanikolaou (quantum protocols, Dr. Nagarajan)
Michal Rutkowski (game theory, Dr. Jurdzinski)
Ashutosh Trivedi (algorithmic game theory. Dr. Jurdinski).

Lecture courses
Further Discrete Mathematics (1st year)
Combinatorics (2nd year)
Algorithm Design (2nd year)
Mathematical Programming (2nd year)

Complexity of Algorithms (3rd year)
Efficient Parallel Algorithms (3rd year)
Advanced Topics in Algorithms (3rd year)
Modelling and Algorithmic Analysis of Systems (4th year)
Algorithmic Game Theory (4th year)
Advanced Algorithms (MSc)
Mathematical Programming and Heuristics (MSc)
Operational Research (4th year)
Optimisation (MSc)

All the people listed above at Warwick are affiliated with DIMAP, the Centre for Discrete Mathematics and its Applications; see http://www.dcs.warwick.ac.uk/dimap for more details.

UNIVERSITY OF THE WEST OF ENGLAND, BRISTOL

Faculty of Computing, Engineering and Mathematical Sciences University of the West of England, Coldharbour Lane, Bristol BS16 1QY. Tel: 0117 344 2783 Fax: 0117 344 2734
http://www.uwe.ac.uk/cems/
Dr Rhys Gwynllyw (graph theory and its applications)
Dr Ana Sendova-Franks (graph theory and its applications)
Dr. Vadim Zverovich* (graph theory, combinatorial optimisation)

Research Students:
Anush Poghosyan (graph theory and algorithms)

Lecture courses
Discrete Mathematics (2nd year)
Operational Research (2nd year)
Decision Analysis (3rd year)
Mathematical Programming (3rd year)

Current periodicals: D, N, S, b