VERONICA KELSEY

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EDUCATION

2018 - present	**PhD Mathematics** University of St Andrews
	Supervisors: Prof Colva M. Roney-Dougal and Dr Martyn Quick
	Research Topic: generation and base size of almost simple groups
2014 - 2018	**MMath Mathematics** The University of Manchester
	Average: 98%
	Dissertation: Mathieu groups and Chamber Graphs

PUBLICATIONS

[1] **A Note on Involution Centralizers in Black Box Groups** - with P.J. Rowley
Journal of Group Theory, J. Group Theory 23 (2020), no. 2, 287 - 297.

[2] **Chamber graphs of minimal parabolic sporadic geometries.** - with P.J. Rowley
Innovations in Incidence Geometry 18 no. 1 (2020), 25–37.

[3] **Chamber Graphs of some Geometries that are Almost Buildings** - with P.J. Rowley
Innovations in Incidence Geometry, 17 (2019), no. 3, 189 - 200.

[4] **M_{24} Orbits of Octad Triples** - with P.J. Rowley
Graphs and Combinatorics, Volume 34, (2018) Issue 6, pp 1429 - 1443.

[5] **Generating Finite Coxeter Groups with Elements of the Same Order**
with S. Hart and P.J. Rowley. Submitted.

[6] **Maximal Cocliques in the Generating Graphs of the Alternating and Symmetric Groups** C. Roney-Dougal. Submitted.

[7] **A Note on the Rank 5 Polytopes of M_{24}** with R. Nicolaides and P.J. Rowley. Submitted

[8] **Imprimitive Maximal Cocliques in the Generating Graphs of the Alternating and Symmetric Groups** with C. Roney-Dougal. Manuscript.

AWARDS AND SCHOLARSHIPS

2020	**Research in "Pairs", MFO Oberwolfach** A funded research visit at Mathematisches Forschungsinstitut Oberwolfach.
2018	**St Andrews PhD scholarship** Fees and a stipend for 3 years of study.
2018	**Outstanding Academic Achievement Award** Presented to 0.5% of the Manchester students.
2018	**Institute of Mathematics and its Applications Prize 2018** Final year outstanding project.
2018	**President's Doctoral Scholar Award (Manchester)** As part of a PhD offer (declined).
2018	**Nominated for The Distinguished Achievement Award** Undergraduate of the Year.
2017	**Fourth Year Scholarship** Tuition fee waiver.
2017	**LMS Undergraduate Research Bursary** Funding for a summer research project.
2016	**BP achievement award 2016** For an essay on Big Data.
2016	**Dalton scholarship** Academic achievement in 2nd year.
2015	**Dalton scholarship** Academic achievement in 1st year.
2014	**Manchester Bursary** Academic achievement at A-level.

TALKS

Jan 2021	**Relational Complexity of Primitive Permutation Groups** Functor Categories for Groups meeting
Dec 2020	**Piscopia Society Talk** aimed to raise awareness of PhD options, highlight female and non-binary role models, and provide a support network
Oct 2020	**Base Size of Permutation Groups** North British Semigroups Network
June 2020	**M$_{24}$ and Octad Triples** Junior London Algebra Colloquium
May 2020	**Maximal Subgroups and Maximal Cocliques** York Algebra Seminar
Jan 2020	**Chamber Graphs of The Sporadic Groups** Postgraduate Interdisciplinary Mathematics Symposium, The Burn House
Aug 2019	**Maximal Cocliques in The Generating Graph of S$_n$** Postgraduate Group Theory Conference, Birmingham
May 2019	**Octad Triples** Edinburgh Mathematical Society Postgraduate Meeting, The Burn
Apr 2019	**The Generating Graph and Maximal Cocliques** Algebra and Combinatorics Seminar, University of St Andrews
Jan 2019	**Maximal Subgroups and Maximal Cocliques** Postgraduate Interdisciplinary Mathematics Symposium, The Burn House
Nov 2018	**A Brief Introduction to M$_{12}$** Pure Postgraduate Seminar, St Andrews
June 2018	**The Kitten, The MINIMOG and M$_{12}$** Pure Postgraduate Seminar, Manchester
May 2018	**Mathieu Groups and Chamber Graphs** Masters Talk, Manchester
Mar 2017	**Imprimitive Wreath Products** Finite Groups Study Group, Manchester

TEACHING

I have produced a number supplementary handouts which students can download from my website, veronicakelsey@github.io.

I have attended a Mental Health Training Day which provides staff with practical information on how to deal with student situations involving mental ill health.

2020	**Probability and Combinatorics** St Andrews
2020	**Abstract Algebra** St Andrews
2019	**Linear Maths** St Andrews
2019	**Combinatorics and Probability** (cover) St Andrews
2019	**Abstract Algebra** St Andrews
2018	**Linear Algebra** Manchester
2017	**Foundations of pure mathematics** Manchester
2016	**Linear Algebra** Manchester
2016	**Sequences and Series** Manchester
2016	**Introduction to Statistics, PASS leader** Manchester
2015	**Probability 1** Manchester
2015	**Sets, Numbers and Functions** Manchester

CONFERENCES AND WORKSHOPS ATTENDED

Mar 2020	**Groups, representations and applications: new perspectives** (Invited participant) Isaac Newton Institute
Jan 2020	**Introductory Workshop** Isaac Newton Institute
Aug 2019	**Post Graduate Group Theory Conference** Birmingham
June 2019	**EWM-EMS Summer School** Institut Mittag-Leffler
May 2019	**Edinburgh Mathematical Society Postgraduate Meeting** The Burn House
May 2019	**North British Geometric Group Theory Seminar** St Andrews
May 2019	**Groups, Generalisations and Applications** St Andrews
Jan 2019	**Workshop on Groups, Generalisations and Applications** Aberdeen
Dec 2018	**The Functor Categories for Groups** on Graphs and groups Lancaster
May 2018	**The Manchester-Birmingham-London-Bristol "Triangle"** Manchester
Sep 2017	**LMS Prospects in Mathematics Workshop** Reading

OTHER ACTIVITIES

Oct 2020	**London Marathon**
Sep 2020	**Website Building**
June 2020	**Python Core and Advanced Course**
June 2020	**Basic online first aid course**
Jan 2020	**Postgraduate Intradisciplinary Mathematics Symposium Organiser**
2019/2020	**Pure Postgraduate Seminar Convener**
May 2019	**Mental Health Training Day**
2018 - present	**Mentor in Peer Mentoring scheme**
2017 - 2018	**MathSoc Seminar Convener and Topical Secretary**

REFERENCES

Prof Colva M. Roney-Dougal - PhD Supervisor
Colva.Roney-Dougal@st-andrews.ac.uk

Prof Alexandre Borovik - Dissertation Marker
alexandre.borovik@manchester.ac.uk