

Ewan Davies

Education

London School of Economics and Political Science Candidate for Ph.D. in Mathematics Supervisors: Prof. Jozef Skokan, Dr. Peter Allen	London, UK Oct 2013 – Sep 2017
Jesus College, University of Cambridge M.Math. Mathematics, Distinction B.A. (Hons) Mathematics, First Class	Cambridge, UK Sep 2012 – Jun 2013 Sep 2009 – Jun 2012

Research Interests

Extremal and probabilistic combinatorics, graphs, Gibbs measures, hypergraphs, Ramsey theory

Awards and Grants

2016	Jan	Santander Scholarship , Santander Travel Research Fund at LSE
2015	Oct	Cyril Offord Trust Award , London School of Economics
2014	Jul	Mathematics Department New Teacher Prize , London School of Economics
2013	Sep	Ph.D. Studentship , London School of Economics
	Jun	Foundation Scholarship and R.A. Watchman Prize , Jesus College, Cambridge <i>for top results in Part III Mathematics examinations</i>
2012	Jun	Foundation Scholarship and Sir Harold Spencer Jones Prize , Jesus College, Cambridge <i>for top results in Part II Mathematics examinations</i>
2011	Jun	Foundation Scholarship and Ware Prize , Jesus College, Cambridge <i>for top results in Part IB Mathematics examinations</i>
2010	Jun	Foundation Exhibition and Bronowski Prize , Jesus College, Cambridge <i>for top results in Part IA Mathematics examinations</i>

Papers

Submitted

- [7] E. Davies, M. Jenssen, W. Perkins and B. Roberts. Tight bounds on the coefficients of partition functions via stability (2017). [arXiv: 1704.07784](https://arxiv.org/abs/1704.07784).

Journal publications

- [6] E. Davies, M. Jenssen, W. Perkins and B. Roberts. Extremes of the internal energy of the Potts model on cubic graphs. *Random Structures & Algorithms* (to appear). [arXiv: 1610.08496](https://arxiv.org/abs/1610.08496).
- [5] E. Davies, M. Jenssen, W. Perkins and B. Roberts. On the average size of independent sets in triangle-free graphs. *Proceedings of the American Mathematical Society* (to appear). [arXiv: 1606.01043](https://arxiv.org/abs/1606.01043).
- [4] E. Davies, M. Jenssen and B. Roberts. Multicolour Ramsey numbers of paths and even cycles. *European Journal of Combinatorics* 63 (2017), 124–133. DOI: [10.1016/j.ejc.2017.03.002](https://doi.org/10.1016/j.ejc.2017.03.002). [arXiv: 1606.00762](https://arxiv.org/abs/1606.00762).
- [3] E. Davies, M. Jenssen, W. Perkins and B. Roberts. Independent Sets, Matchings, and Occupancy Fractions. *Journal of the London Mathematical Society* (to appear). [arXiv: 1508.04675](https://arxiv.org/abs/1508.04675).

Conference publications

- [2] E. Davies, M. Jenssen, W. Perkins and B. Roberts. Tight bounds on the coefficients of partition functions via stability (extended abstract). *Electronic Notes in Discrete Mathematics* (to appear).
- [1] E. Davies. Counting in hypergraphs via regularity inheritance (extended abstract). *Electronic Notes in Discrete Mathematics* 49 (2015), 413–417. DOI: [10.1016/j.endm.2015.06.058](https://doi.org/10.1016/j.endm.2015.06.058).

Talks

Conferences and workshops

2017	Aug	European Conference on Combinatorics, Graph Theory and Applications (EUROCOMB 2017)	Vienna, Austria
	May	Two one-day Colloquia in Combinatorics, LSE (invited)	London, UK
2016	Aug	Student Combinatorics Day (invited)	Birmingham, UK
2015	Aug	European Conference on Combinatorics, Graph Theory and Applications (EUROCOMB 2015)	Bergen, Norway
	Jul	Novi Sad Workshop on Foundations Of Computer Science	Novi Sad, Serbia
	Apr	Postgraduate Combinatorial Conference, QMUL	London, UK
2014	Jul	SUMMIT 190: Balogh, Csaba, Hajnal, and Pluhar are 190 (invited)	Szeged, Hungary

Seminars

2017	Feb	Combinatorics Seminar	Oxford, UK
	Feb	Discrete Mathematics Seminar, KdVI / CWI	Amsterdam, Netherlands
	Jan	PhD Seminar on Combinatorics, Games and Optimisation, LSE	London, UK
2016	Apr	Seminário de Teoria da Computação, Combinatória e Otimização	São Paulo, Brazil
2015	Nov	Discrete Geometry and Combinatorics Seminar, UCL	London, UK
	Oct	Mathematics Lunchtime Seminar, LSE	London, UK
	Apr	Combinatorics Seminar, Freie Universität	Berlin, Germany
2013	Nov	Mathematics Lunchtime Seminar, LSE	London, UK

Research Visits

2016	Apr	Universidade de São Paulo , Departamento de Ciência da Computação <i>with Yoshiharu Kohayakawa</i>	São Paulo, Brazil
	Mar	Instituto Nacional de Matemática Pura e Aplicada <i>with Rob Morris</i>	Rio de Janeiro, Brazil
2015	Sep	Group Workshop , Institute of Mathematics, Freie Universität Berlin <i>with Tibor Szabó</i>	Děčín, Czech Republic

Schools

2015	Jul	Regularity and Analytic Methods in Combinatorics University of Warwick	Coventry, UK
2014	Jun	Budapest Summer School in Discrete Mathematics Eötvös Loránd University	Budapest, Hungary

Teaching

2016		Mathematics Support Centre , one-to-one tuition in a variety of courses	LSE
2015		Mathematics Support Centre , one-to-one tuition in a variety of courses	LSE

	Real Analysis (MA203) , class teacher for 2 groups of 15 students	LSE
2014	Graph Theory (MA316) , class teacher for 1 group of 15 students	LSE
	Further Mathematical Methods (MA212) , class teacher for 3 groups of 15 students	LSE
2013	Mathematical Methods (MA100) , class teacher for 3 groups of 15 students	LSE

Academic Service

Peer review

European Journal of Combinatorics

Journal of Graph Theory

Other Experience

Athena Swan Assessment Team Member, London School of Economics and Political Science, Jan 2016

Green Impact Team Member, London School of Economics and Political Science, Sep 2015