

CURRICULUM VITAE – DAVID CONLON

PERSONAL INFORMATION

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POSITIONS HELD

2011- : University Lecturer in Discrete Mathematics, University of Oxford.
2011- : Tutorial Fellow, Wadham College, Oxford.
2010- : Royal Society University Research Fellow.
2007-10: Junior Research Fellow, St John's College, Cambridge.

EDUCATION

2004-09: PhD in mathematics, University of Cambridge.
Advisor: W.T. Gowers
Title: *Upper bounds for Ramsey numbers.*
2003-04: Part III mathematics, University of Cambridge.
With distinction.
1999-2003: BA in mathematics, Trinity College Dublin.
First class degree with gold medal.

AWARDS AND DISTINCTIONS

2011: European Prize in Combinatorics.
2005: Smith-Knight Prize, University of Cambridge.
2003: Gates Scholarship, University of Cambridge.
2003: Benefactors' Scholarship, St John's College, Cambridge.
2003: Bishop Law Prize, Trinity College, Dublin.
2001: Toronto Prize, Trinity College, Dublin.
2001: Foundation Scholarship, Trinity College, Dublin.
1998-99: Twice member of the Irish Mathematical Olympiad Team.

PUBLICATIONS

Large almost monochromatic subsets in hypergraphs, with J. Fox and B. Sudakov, *Israel J. Math.* **181** (2011), 423–432.
An approximate version of Sidorenko's conjecture, with J. Fox and B. Sudakov, *Geom. Funct. Anal.* **20** (2010), 1354–1366.
An extremal theorem in the hypercube, *Electron. J. Combin.* **17** (2010), R111.
Hypergraph Ramsey numbers, with J. Fox and B. Sudakov, *J. Amer. Math. Soc.* **23** (2010), 247–266.

On-line Ramsey numbers, *SIAM J. Discrete Math.* **23** (2009), 1954–1963.

Ramsey numbers of sparse hypergraphs, with J. Fox and B. Sudakov, *Random Structures Algorithms* **35** (2009), 1–14.

Hypergraph packing and sparse bipartite Ramsey numbers, *Combin. Probab. Comput.* **18** (2009), 913–923.

A new upper bound for diagonal Ramsey numbers, *Ann. of Math.* **170** (2009), 941–960.

A new upper bound for the bipartite Ramsey problem, *J. Graph Theory* **58** (2008), 351–356.

On the existence of rainbow 4-term arithmetic progression, with V. Jungić and R. Radoičić, *Graphs Combin.* **23** (2007), 249–254.

Rainbow solutions of linear equations over \mathbb{Z}_p , *Discrete Math.* **306** (2006), 2056–2063.

SUBMITTED PAPERS Two extensions of Ramsey’s theorem, with J. Fox and B. Sudakov.

Bounds for graph regularity and removal lemmas, with J. Fox.

Combinatorial theorems in sparse random sets, with W. T. Gowers.

Erdős-Hajnal-type theorems in hypergraphs, with J. Fox and B. Sudakov.

On two problems in graph Ramsey theory, with J. Fox and B. Sudakov.

Weak quasi-randomness for uniform hypergraphs, with H. Hàn, Y. Person and M. Schacht, to appear in *Random Structures Algorithms*.

The Ramsey number of dense graphs, to appear in *Bull. London Math. Soc.*

An improved bound for the stepping-up lemma, with J. Fox and B. Sudakov, to appear in *Discrete Appl. Math.*

On the Ramsey multiplicity of complete graphs, to appear in *Combinatorica*.

SELECTED TALKS

01/12: Discrete Mathematics workshop, Eilat, Israel.

11/11: Discrete Mathematics seminar, Freie Universitat, Berlin.

08/11: Eurocomb, Rényi Institute, Budapest.

08/11: Irish Maths Society meeting, University of Limerick.

05/11: Additive Combinatorics seminar, Ecole Polytechnique, Paris.

05/11: Ramsey Theory conference, Bertinoro, Italy.

04/11: Hypergraph Turán Problem workshop, AIMS, Palo Alto.

01/11: Combinatorics workshop, MFO, Oberwolfach.

10/10: Discrete Mathematics seminar, Institute for Advanced Study, Princeton.

10/10: Discrete Mathematics seminar, Columbia University.

10/10: Discrete Mathematics seminar, MIT.
08/10: Extremal Combinatorics workshop, Frauenchiemsee, Germany.
05/10: Discrete Mathematics seminar, DIMAP, University of Warwick.
02/10: Combinatorics seminar, University of Oxford.
11/09: Topics in Graphs and Hypergraphs conference, IPAM, Los Angeles.
08/09: Extremal and Probabilistic Combinatorics workshop, BIRS, Banff.
08/09: Random Structures and Algorithms conference, Poznań.
09/08: Extremal Combinatorics workshop, University of Birmingham.
08/08: Fête of Combinatorics and Computer Science, Keszthely, Hungary.
05/08: Combinatorics seminar, UCLA.
05/07: One-day colloquium in Combinatorics, Queen Mary, London.
01/07: Discrete Mathematics seminar, London School of Economics.
12/06: Pure Mathematics colloquium, University College London.
11/06: Combinatorics seminar, Rényi Institute, Budapest.
07/06: Czech-Slovak Symposium on Discrete Mathematics, Prague.
04/06: Additive Combinatorics conference, CRM, Montréal.
04/06: Pure Mathematics seminar, University of Memphis.
03/06: Combinatorics seminar, University of Cambridge.

TEACHING
EXPERIENCE

2010-11: Extremal graph theory, 16 lectures.

2009-10: Graph Ramsey theory, 12 lectures.

2004-11: extensive supervision experience on topics including numbers and sets, probability, group theory, analysis, vector calculus, dynamics, differential equations, mathematical methods, graph theory and differential geometry.

2004-08: three-week course on theoretical physics at the Centre for Talented Youth in Ireland.

RESEARCH
INTERESTS

Extremal and probabilistic combinatorics, particularly extremal graph theory, Ramsey theory, random structures, quasirandomness and additive combinatorics.