Graeme Kemkes

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Citizenship: Canadian

Education

2010–present	Postdoctoral researcher, Ryerson University, Toronto
	Supervisor: Anthony Bonato
Fall 2009	Long-term visitor, Institute for Pure and Applied Mathematics, UCLA
	Special program: Combinatorics: Methods and Applications
2008–2010	Postdoctoral researcher, University of California, San Diego
	Supervisor: Fan Chung Graham
	Scholarship: NSERC PDF
2003–2008	Ph.D., University of Waterloo: Combinatorics & Optimization
	"Properties of random graphs"
	Supervisor: Nicholas C. Wormald
	Faculty award: Outstanding Achievement in Graduate Studies
	Scholarship: NSERC CGS
2002–2003	M. Math, University of Waterloo: Combinatorics & Optimization
	Supervisor: L. Bruce Richmond
	Faculty award: Outstanding Achievement in Graduate Studies
	Scholarship: NSERC PGS A
1998–2002	B. Math, University of Waterloo: Pure Math and Computer Science (Hon.)
	University award: Governor General's Silver Academic Medal
	Scholarship: Descartes/Sybase National Scholarship

Research interests

- random graphs
- probabilistic combinatorics
- graph theory

Contributions to scientific research

Graeme Kemkes, Xavier Pérez-Giménez and Nicholas Wormald (2010) On the chromatic number of random d-regular graphs, *Advances in Mathematics*, 223(1), 300-328.

Haiyan Xu, D. Marc Kilgour, Keith W. Hipel and Graeme Kemkes (2010) Using matrices to link conflict evolution and resolution in a graph model. *European Journal of Operational Research*, 207(1), 318–329.

J. Díaz, A.C. Kaporis, G. D. Kemkes, L.M. Kirousis, X. Pérez and N. Wormald (2009) On the chromatic number of a random 5-regular graph, *Journal of Graph Theory* 61(3), 157-191.

G. Kemkes, D. Merlini and B. Richmond (2008) Maximum Stirling numbers of the second kind. *Integers* 8(1), #A27, 17 pages.

G. Kemkes, C. F. Lee, D. Merlini and B. Richmond (2003) Stirling numbers for complex arguments: asymptotics and identities. *SIAM Journal on Discrete Mathematics* 16(2), 179-191.

C. L. A. Clarke, G. V. Cormack, G. Kemkes, M. Laszlo, T. R. Lynam, E. L. Terra and P. L. Tilker (2002) Statistical selection of exact answers. 2002 Text REtrieval Conference (TREC 2002), Gaithersburg, Maryland.

Conference presentations

G. Kemkes (2009) Contiguity for random graphs having a given degree sequence. Presented at Combinatorics: Methods and Applications in Mathematics and Computer Science, Institute for Pure and Applied Mathematics (UCLA), Lake Arrowhead, California, USA.

G. Kemkes (2008) On the chromatic number of random d-regular graphs. Invited presentation (combinatorics session), Canadian Mathematical Society Winter Meeting, Ottawa, Canada.

G. Kemkes (2007) The longest cycle in the supercritical random graph. Presented at the CRM Conference on Enumeration and Probabilistic Methods in Combinatorics, Barcelona, Spain.

G. Kemkes (2006) On the chromatic number of a random 5-regular graph. Presented at the DIMACS/DIMATIA/Renyi Combinatorial Challenges Meeting, Rutgers U., USA.

G. Kemkes (2006) Colouring random regular graphs. Presented at the Carleton Applied Probability Workshop, Ottawa, Ontario.

G. Kemkes (2005) Long cycles in supercritical random graphs. Presented at the Ontario Combinatorics Workshop, Toronto, Ontario.

G. Kemkes (2005) Long cycles in random graphs. Presented at the Graduate Student Research Conference, Waterloo, Ontario.

G. Kemkes (2004) Maximum Stirling numbers of the second kind. Presented at the Ontario Combinatorics Workshop, Kingston, Ontario.

G. Kemkes (2003) Finding Hamilton Cycles in Random Graphs. Presented at the Ontario Combinatorics Workshop, Ottawa, Ontario.

Seminar presentations

Combinatorics seminar, Georgia Institute of Technology. (2009)
Combinatorics seminar, UC Los Angeles. (2009)
Combinatorics seminar, UC San Diego. (2008)
Theoretical computer science seminar, University of Toronto. (2007)

Awards

- Gold medal team, ACM Intercollegiate Programming Competition, 2001 and 2002
- Bronze medal, International Olympiad in Informatics, 1997

Teaching experience

Winter 2010	Instructor, Calculus, UC San Diego
Spring 2009	Instructor, Linear Algebra, UC San Diego
Fall 2004	Instructor, Calculus 1 for the Sciences, U. of Waterloo
1999–2008	Teaching assistant, U. of Waterloo

- discrete math, calculus, linear algebra, classical algebra, graph theory, enumeration, combinatorics, operations research, network flow, and portfolio optimization
- earned departmental "Outstanding Teaching Assistant" award, spring 2004

"Certificate in University Teaching", University of Waterloo, 2007

- delivered three lectures which were favourably evaluated by teaching office staff
- completed seven teaching-related workshops, including "Teaching large classes"
- prepared research essay, "Teaching to reduce math anxiety"

Publications in education

T. Vasiga, G. Cormack, G. Kemkes (2008), What do olympiad tasks measure?, *Olympiads in Informatics* 2, 181–191.

G. Kemkes, G.V. Cormack, I. Munro, and T. Vasiga (2007), New task types at the Canadian Computing Competition, *Olympiads in Informatics* 1, 79–89.

G. Kemkes, T. Vasiga, and G. Cormack (2006) Objective scoring for computing competition tasks. In R. Mittermeir (Ed.), *Informatics education - The bridge between using and understanding computers, International conference in informatics in secondary schools - Evolution and perspectives, ISSEP 2006, Vilnius, Lithuania*, Springer Lecture Notes in Computer Science 4226, 230–241.

G. Cormack, I. Munro, T. Vasiga, G. Kemkes (2006) Structure, scoring and purpose of computing competitions. *Informatics in Education* 5, 15–36.