

# Alexander E. Holroyd

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**Email:** holroyd@math.ubc.ca

**Address:** Department of Mathematics, 121 - 1984 Mathematics Rd,  
University of British Columbia, Vancouver, BC V6T 1Z2, CANADA

**Homepage:** [www.math.ubc.ca/~holroyd](http://www.math.ubc.ca/~holroyd)

**Telephone/Fax:** +1 604 822 6532

**Date of Birth:** 31 October 1973

## Research interests

Probability theory, with emphasis on discrete spatial models, including cellular automata, percolation, matching and coupling.

See homepage for publications list.

## Awards

2007: **André-Aisenstadt Prize** (awarded annually to one or two young mathematicians in Canada)

2004: **Rollo Davidson Prize** (international prize awarded annually to one or two young probabilists by Cambridge University)

2008–present and 2003–2008: **National Sciences and Engineering Research Council (Canada) research grant** as principal investigator

2000–2003: **National Science Foundation (USA) research grant** as principal investigator

1997: Smith Prize – Class 1 (highest) out of 5, for essay on PhD research

1992–1995: University and College prizes for examination results

1991: British Physics Olympiad gold award

## Employment

2008–present: **Senior Researcher**. Microsoft Research (Theory Group), Redmond, USA

2006–present: **Associate Professor (tenured)**. Mathematics, UBC, Canada

2002–2006: **Assistant Professor (tenure track)**. Mathematics, UBC, Canada

2002–2003: **Postdoctoral Fellow.** Mathematics, UC Berkeley, USA

1999–2002: **Hedrick Assistant Professor.** Mathematics, UCLA, USA

1991–1992: Assistant Researcher. Transport Research Laboratory, UK

**Visiting research positions:** Microsoft Research Theory Group, Redmond, USA (Jan-Jun 2007, Jan-May 2008); Mathematical Sciences Research Institute, Berkeley (Jan-May 2005); Mittag-Leffler Institute, Stockholm (Spring 2009; forthcoming)

## Qualifications

2000: **Ph.D. in Mathematics.** Statistical Laboratory, University of Cambridge, UK

1999: M.A., University of Cambridge, UK

1996: **Certificate of Advanced Study in Mathematics, with Distinction.** University of Cambridge, UK

1995: **B.A. in Mathematics, First Class.** University of Cambridge (Queens' College), UK

1989–1991: 4 A-levels at grade A, 3 S-levels at grade 1, 2 STEP papers at grade S. 9 GCSEs at grade A. Yateley School, Hampshire, UK

## Selected invited lectures

Cornell Summer School in Probability (2009, forthcoming; one of three lecture courses); André-Aisenstadt prize lecture (Montréal, 2007)

**Conferences:** American Mathematical Society (San Diego, 2008), American Mathematical Society (Vancouver, 2008; two talks) Midwest Probability Colloquium (2006, one of three main speakers), Workshop in critical scaling for polymers and percolation (Banff, 2005), Seminar on Stochastic Processes (Cornell, 2005; one of five main speakers), Icelandic Probability Meeting (Reykjavik, 2005; opening lecture), Institute of Mathematical Statistics / Bernoulli Society Annual Meeting (Barcelona, 2004), Stochastic-geometric and combinatorial ideas in statistical mechanics (Goteborg, 2004), Pacific Northwest Probability Seminar (Seattle, 2003; one of four main speakers), Workshop on randomized algorithms (Isaac Newton Institute, Cambridge 2002), European meeting of statisticians (Prague, 2002), Southern California Probability Symposium (USC, 1999).

**Mathematics department colloquia:** UC Berkeley, UBC Vancouver (3), Georgia Institute of Technology, Iowa State University. **Seminars:** University of Sao Paulo,

University of Utrecht, University of Cambridge, UW Madison, UBC Vancouver, UCLA, UC Berkeley, Stanford University, UC Davis, UC San Diego, California Institute of Technology, Microsoft Research, University of Toronto, University of Pennsylvania, University of Victoria, University of Washington.

## Teaching

2003–present (UBC) and 1999–2002 (UCLA): Lecturing and administrating courses in mathematics, including probability theory, stochastic processes, analysis, percolation, calculus and discrete mathematics. Courses have included undergraduate classes of up to 210 students, and advanced graduate topics courses.

2008: **Lead organizer for international summer school in probability**, UBC, attended by over 80 graduate students.

2008: **Keynote Speaker, Canadian Undergraduate Mathematics Conference**, Toronto

2004–present: Supervising a PhD student, Terry Soo, UBC

2006–present: PhD committees for Jesse Goodman and Erez Louidor, UBC

2003,2004: Supervising an undergraduate in summer research projects, UBC

2002: **Distinguished Teaching Award**, UCLA Mathematics

1997–1999: Supervising undergraduate students in mathematics, University of Cambridge

## Other professional activities

Associate Editor, Annals of Applied Probability. Running weekly probability seminars at UCLA, UC Berkeley and UBC. Refereeing papers for journals including The Annals of Probability, Probability Theory and Related Fields, The Annals of Applied Probability, Journal of Combinatorial Theory A, London Mathematical Society, Electronic Journal of Probability, Electronic Communications in Probability, Stochastic Processes and Applications. Reviewing research grant proposals for National Science Foundation (USA), NSERC (Canada) and AMS/NSA (USA). Co-organising a conference (UBC), a workshop (CRM), a summer school (UBC) and a session in an AMS meeting. Co-organising a Focussed Research Group at BIRS, Banff, Canada. Member of the Canadian Mathematical Society.