

Alexander E. Holroyd

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<http://aeholroyd.org>

Research interests: Probability theory and combinatorics, with emphasis on phase transitions, cellular automata, percolation, matching, permutations, and coloring

Papers: Over 70 peer-reviewed publications; see <http://aeholroyd.org>

Positions

2008–2017: **Senior Researcher.** Microsoft Research, Redmond, USA

2006–2010: **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

Affiliate positions: UBC (2010–present); U Washington (2010–present)

Visiting positions: Microsoft Research, Redmond (Jan–Jun 2007, Jan–May 2008); MSRI, Berkeley (Jan–May 2005); Mittag-Leffler Institute, Stockholm (Feb–Apr 2009)

Qualifications

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

1996: **M.Math. (Part III Maths), with Distinction.** University of Cambridge, UK

1995: **B.A. in Mathematics, First Class.** University of Cambridge, UK

Prizes and grants

2007: **André-Aisenstadt Prize** (awarded annually to one or two young mathematicians in Canada by Centre de Recherches Mathématiques)

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

2003–2008, 2008–2010: **NSERC (Canada) research grants** as principal investigator

2000–2003: **NSF (USA) research grant** as principal investigator

Selected invited lectures

Lecture series and minicourses: University of Gothenburg (2017); Summer School on Tilings, Oléron, France (2016); Dutch Stochastics Meeting (2011); Cornell Summer School in Probability (2009)

Conferences: Combinatorial Potlatch (2015, main speaker); Heilbronn Conference (2014); UW / PIMS Colloquium (2010); British Probability Meeting (2009); André-Aisenstadt prize lecture (2007); Midwest Probability Colloquium (2006, 1 of 3 main speakers); Seminar on

Stochastic Processes (2005, 1 of 5 main speakers), Icelandic Probability Meeting (2005, opening lecture), Pacific Northwest Probability Seminar (2003, 1 of 4 main speakers); Southern California Probability Symposium (1999, 1 of 4 main speakers); BIRS; Isaac Newton Institute; MSRI; ICERM; Simons Institute; Mittag-Leffler Institute; American Mathematical Society; Canadian Mathematical Society; Institute of Mathematical Statistics; European Meeting of Statisticians

Mathematics department colloquia: UC Berkeley; Harvard/MIT; UCLA; UBC Vancouver; Georgia Institute of Technology; U Washington; Dartmouth College; UC Davis; U Victoria; Iowa State U. **Probability and combinatorics seminars** at over 30 universities.

PhD students

Terry Soo (UBC, graduated 2010; now Assistant Professor at University of Kansas)

Avi Levy (UW, graduated 2017)

Interns mentored: Vadim Gorin (2009), Riddhipratim Basu (2013), Tom Hutchcroft (2015, 2016), Avi Levy (2016). **External examiner / committee member:** Jesse Goodman, Erez Louidor, Ewa Infield, Anders Martinsson

Teaching

2003–2008 (UBC), 1999–2002 (UCLA): Lecturing and administrating over 25 mathematics courses, including probability, stochastic processes, analysis, percolation, calculus, and discrete mathematics; including 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.

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

Invited undergraduate lectures: MAA Festival of Mathematics (2016, 1 of 3 speakers); UW Math Day (2015, 2016); Canadian Undergraduate Mathematics Conference (2008, keynote speaker).

Service

Editorial boards: Annals of Applied Probability, Annales de L’Institut Henri Poincaré. **Reviewer** for journals including: Journal of the AMS, Duke Math Journal, Annals of Probability, Probability Theory and Related Fields. **Reviewer** of grant proposals for: NSF, AMS/NSA, BIRS, NSERC (Canada), NWO (Netherlands). **Reviewer** for tenure and promotion cases at 6 universities. **Organizer** of over 10 conferences and workshops.

Patents

Visualizing large graphs (2016); Routing edges with ordered bundles (2011).