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CITIZENSHIP: U.S.A.

EDUCATION

1999 Ph.D. Statistics, University of California, Berkeley.
1995 M.A. Statistics, University of California, Berkeley.
1993 B.S. Mathematics, University of Chicago (with General Honors).

HONORS

1994 Dora Garabaldi Fellowship, University of California
1993 Phi Beta Kappa
1993 Sigma Xi

POSITIONS

1/2005 - 5/2005. Visiting member, Mathematical Sciences Research Institute.
2002 - 7/2005 Wylie Assistant Professor - Lecturer, Department of Mathematics, University of Utah.
2000 - 2002. Applied Research Mathematician, National Security Agency.
1999 - 2000. University Postdoctoral Fellow, Department of Mathematics, University of Connecticut.

CONSULTING

Adjunct Research Staff, Center for Communication Research (La Jolla), Institute for Defense Analysis.

RESEARCH INTERESTS

Stochastic Processes: Probability on graphs and combinatorial structures (Markov chains, random walks, percolation and related potential theory), heat kernel estimates and Harnack inequalities for jump processes, hidden Markov chains.

PH.D. THESIS

Phase Transitions in Probability: Percolation and Hidden Markov Models.
Department of Statistics, University of California, Berkeley.
Committee: Yuval Peres (Chair), Steven Evans, Alistair Sinclair.

RESEARCH PUBLICATIONS (Preprints at <http://www.math.utah.edu/~levin/pubs>)

An extreme-value analysis of the LIL for Brownian motion.

(with D. Khoshnevisan and Z. Shi.) Submitted. arXiv:math.PR/0411376.

Capacities in Wiener space, quasi-sure lower functions, and Kolmogorov's ε -entropy.

(with D. Khoshnevisan and P. Méndez-Hernández.) Submitted. arXiv:math.PR/0410236

Exceptional times and invariance for dynamical random walks.

(with D. Khoshnevisan and P. Méndez-Hernández.)

Prob. Theory Rel. Fields, to appear. arXiv:math.PR/0409479

On the fundamental theorem of card counting with application to the game of trente-et-quarante.

(With S. N. Ethier.) *Advances in Applied Probability*, **37**(1), to appear March 2005.

On dynamical Gaussian random walks.

(with D. Khoshnevisan and P. Méndez-Hernández.) *Annals of Probability*, to appear.

arXiv:math.PR/0307346

Identifying several biased coins encountered by a hidden random walk.

(With Y. Peres.) *Random Structures and Algorithms*, Volume 25, Issue 1, 2004, pp. 91-114.

Continuous and discontinuous phase transitions in hypergraph processes.

(with R. W. R. Darling and James R. Norris.) *Random Structures and Algorithms*,

Volume 24, Issue 4, 2004, pp. 397-419.

Harnack inequalities for jump processes.

(With R. Bass.) *Potential Analysis*, Volume 17, 2002, pp. 375-388, 2002.

Transition probabilities for symmetric jump processes.

(With R. Bass.) *Transactions of the A.M.S.*, Volume 354, No. 7, pp. 2933-2953, 2002.

Phase transitions in random coin tossing.

(With R. Pemantle and Y. Peres.) *Annals of Probability*, Volume 29, pp. 1637-1669, 2001.

Energy and cutsets in infinite percolation clusters.

(With Y. Peres.) In *Random Walks and Discrete Potential Theory*, Cortona 1997. *Symposia Mathematica*, Vol. XXXIX, M. Picardello and W. Woess (editors), Cambridge University Press, pp. 264-278, 1999.

INVITED TALKS

Probability, Algorithms and Statistical Physics Seminar. MSRI. March 2005

Workshop on Phase Transitions in Computation and Reconstruction. MSRI. March 2005

Department of Mathematics, Tulane University. Colloquium. January 2005.

Department of Mathematics, C.U.N.Y. Graduate Center. Probability Seminar. November 2004.

Department of Mathematics, University of California, Los Angeles. Probability Seminar. March 2004.

Department of Mathematics, Baruch College (C.U.N.Y.) February 2004.

Department of Mathematics, University of Utah. Colloquium. February 2004.

Department of Mathematical Sciences. University of Delaware. February 2004.

Department of Mathematics, Louisiana State University. Colloquium. December 2003.

Department of Mathematics, University of Wisconsin. July 2003.

Department of Mathematics, University of Utah. Stochastics Seminar. November 2002, October 2004.
Department of Statistics, University of Connecticut. Colloquium. April, 2000.
Courant Institute, N.Y.U. Probability and Statistical Physics Seminar. January 2000.
Department of Mathematics, University of Connecticut. Analysis Seminar. September 1999,
December 1999, October 2000.
Special Session on Probabilistic Combinatorics. A.M.S. Meeting, Charlotte, N.C. October 1999.
Special Session on Ergodic Theory of Processes. A.M.S. Meeting, Salt Lake City, UT. September 1999.
Workshop on Phase Transitions in Computer Science. University of Paris (Orsay). June 1999.
Department of Statistics, University of California, Berkeley. Colloquium. April 1999.

TEACHING

M.S. supervisor for Michael Webb (M.S. Program for Secondary Teachers of Mathematics and Science, University of Utah, Expected May 2005.)
M.A. committee member for Ian Renner (Department of Mathematics, University of Utah, May 2004.)
Research Experience for Undergraduates: Mathematics of games of chance, Summer 2005, University of Utah (with S.N. Ethier.)
Instructor with primary responsibility for: calculus, business calculus, ordinary differential equations, statistical inference, applied statistics, elementary statistics, stochastic processes and simulation, probability, college algebra, game theory.

PROFESSIONAL SERVICE

Referee for *Probability Theory and Related Fields*, *Stochastic Processes and Applications*,
Discrete Mathematics, *Combinatorics Probability and Computing*,
Rocky Mountain Journal of Mathematics, *Random Structures and Algorithms*.

REFERENCES

Richard Bass, University of Connecticut, bass@math.uconn.edu
Steven Evans, University of California, Berkeley, evans@stat.berkeley.edu
Stewart Ethier, University of Utah, ethier@math.utah.edu
Davar Khoshnevisan, University of Utah, davar@math.utah.edu
Yuval Peres, University of California, Berkeley, peres@stat.berkeley.edu
Nathan Smale, University of Utah, smale@math.utah.edu (teaching reference)