
Department of Mathematics, Statistics and Computer Science
Macalester College
1600 Grand Avenue
Saint Paul, MN 55105

abeverid@macalester.edu
www.macalester.edu/~abeverid
Work: (651) 696-6603
Fax: (651) 696-6518

I. EDUCATION

Ph.D. in Mathematics 1992-1997
Yale University (New Haven, CT)
Dissertation: Stopping Rules and Time Reversal for Finite Markov Chains
Advisor: László Lovász

M.S. in Mathematics 1992-1994
Yale University (New Haven, CT)

B.A. with Honors in Mathematics 1987-1991
Williams College (Williamstown, MA)
Magna Cum Laude, Phi Beta Kappa, Sigma Xi

II. ACADEMIC APPOINTMENTS

Assistant Professor 2007-present
Department of Mathematics and Computer Science
Macalester College (Saint Paul, MN)

Eugene P. Shelly Visiting Assistant Professor 2005-2007
Department of Mathematical Sciences
Carnegie Mellon University (Pittsburgh, PA)

Richard J. Duffin Visiting Assistant Professor 1997-1998
Department of Mathematical Sciences
Carnegie Mellon University (Pittsburgh, PA)

III. RELEVANT NON-ACADEMIC EMPLOYMENT

Database Architect 2005
Information Resources and Technology
Stanford University School of Medicine (Stanford, CA)

Senior Software Engineer 2002-2005
NorthStar Software (San Francisco, CA)

Software Engineer 1998-2002
Extricity Software (Redwood Shores, CA)

IV. PUBLICATIONS

Note: in the field of mathematics, co-authors are always listed alphabetically.

Articles published in peer reviewed journals

1. A. Beveridge and L. Lovász, *Random walks and the regeneration time* [J. Graph Theory 29 (1998), 57-62].
2. A. Beveridge, A. Frieze and C. McDiarmid, *Random minimum length spanning trees in regular graphs* [Combinatorica 18 (1998), 311-333].
3. A. Beveridge, T. Bohman, A. Frieze and O. Pikhurko, *Product rule wins a competitive game* [Proc. AMS, Vol. 135, No. 10 (2007), 3061-3072].
4. A. Beveridge and O. Pikhurko, *On the Connectivity of extremal Ramsey graphs* [Australasian J. of Combinatorics, 41 (2008), 57–62].
5. A. Beveridge, T. Bohman, A. Frieze and O. Pikhurko, *Game Chromatic Index of Graphs with Given Restrictions on Degrees*, [Theoretical Computer Science, 407 (2008), 242–249].
6. A. Beveridge, *Centers for random walks on trees*. [SIAM Journal on Discrete Mathematics, Vol. 23, Issue 1 (2009), pp. 300–319].
7. A. Beveridge, T. Bohman, A. Frieze and O. Pikhurko, *Memoryless Rules for Achlioptas Processes* [SIAM Journal on Discrete Mathematics, Vol. 23, Issue 2 (2009), pp. 993–1005].
8. A. Beveridge and L. Lovász, *Exit frequency matrices for finite Markov chains* [Combinatorics, Probability and Computing 19 (2010), pp. 541–560].
9. A. Beveridge, *Connectivity of random cubic sum graphs* [SIAM Journal on Discrete Mathematics, to appear].

Articles submitted to peer reviewed journals

10. A. Beveridge and M. Wang (Macalester 2009), *Extremal mixing times for trees*.
11. A. Beveridge and M. Bradonjić, *On the mixing time of geographical threshold graphs*.

Articles in preparation

12. M. Axenovich, A. Beveridge, J.P. Hutchinson and D. West, *Directed Visibility Number for Planar Digraphs and Tournaments*.
13. J. Bañuelos (Macalester 2011) and A. Beveridge, *A Simultaneous Markov Chain Game*.
14. A. Beveridge and C. Ettinger (Macalester 2009), *Voting Patterns in the Scottish Parliament*.
15. A. Beveridge and S. Cooke (Macalester 2009), *Optimizing First Year Course Assignment at Macalester College*.
16. A. Beveridge, V. Isler and D. Ozsoyeller, *The Symmetric Rendezvous Problem*.
17. A. Beveridge, J. MacCauley, A. Maurer, S. Valeva, *Cops and Robbers on Families of Graphs*.

V. PRESENTATIONS

Invited research seminars at colleges and universities

1. Scotty Macalester and the Mathematical Sorting Hat February 2010
Macalester College, Department of Mathematics, Statistics and Computer Science
2. Random Cubic Sum Graphs April 2007
Carnegie Mellon University, Department of Mathematical Sciences,
ACO Seminar
3. Random Walks and Stopping Rules January 2007
Bard College, Department of Mathematics
4. Random Walks and Stopping Rules January 2007
Macalester College, Department of Mathematics and Computer Science
5. On the Connectivity of Extremal Ramsey Graphs March 2006
Carnegie Mellon University, Department of Mathematical Sciences,
Undergraduate Math Colloquium
6. Random Walks and the Regeneration Time December 2005
Carnegie Mellon University, Department of Mathematical Sciences,
ACO Seminar
7. Disorientation and Amnesia: Stopping Rules for Finite Markov Chains May 1998
Carnegie Mellon University, Department of Mathematical Sciences,
Department Colloquium
8. Stop in the name of π : Stopping Rules and Finite Markov Chains March 1997
Williams College, Department of Mathematics
9. Propp-Wilson's Exact Mixing via Coupling from the Past January 1996
Yale University, Department of Mathematics,
Discrete Math Seminar
10. Somebody Stop Me: Random Walks and Stopping Rules October 1995
University of Rhode Island, Department of Mathematics,
Department Seminar

Invited research presentations at conferences and workshops

11. Exit Frequency Matrices for Random Walks on Graphs April 2010
AMS Midwestern Sectional Meeting, Macalester College, Saint Paul, MN
12. Exit Frequency Matrices for Finite Markov Chains August 2009
14th International Workshop on Random Structures and Algorithms,
Adam Mickiewicz University, Poznań, Poland.
13. Extremal Mixing Times for Trees April 2009
MAA North Central Section Meeting, Hamline University, Saint Paul, MN
14. Random Cubic Sum Graphs June 2008
SMALL Mini-Conference, Williams College, Williamstown MA
15. Centers for Random Walks on Trees June 2007
Workshop on Markov Chain Monte Carlo, DIMACS, Rutgers University, Piscataway, NJ

Other presentations

16. The Catalan Chameleon July 2010
Plenary Talk, MathPath Summer Camp
17. The Catalan Numbers July 2010
Week-long breakout session, Math Path Summer Camp

VI. GRANTS, AWARDS AND RECOGNITION

External grants

National Security Association
Young Investigator Grant H98230-08-1-0064
\$30,000, Spring 2008 - Spring 2010.

Fellowships

Wimmer Fellowship
Eberly Center for Excellence in Teaching
Carnegie Mellon University

Teaching Honors

First Runner Up, Yale Teaching Prize
Yale University

VII. TEACHING EXPERIENCE

MATH 135	Applied Calculus	Macalester College	Spring 2010
MATH 376	Algebraic Structures	Macalester College	Spring 2010
MATH 236	Linear Algebra	Macalester College	Fall 2009
MATH 379	Combinatorics	Macalester College	Fall 2009
MATH 136	Discrete Mathematics	Macalester College	Spring 2009
MATH 376	Algebraic Structures	Macalester College	Spring 2009
MATH 136	Single Variable Calculus	Macalester College	Fall 2008
MATH 469	Discrete Applied Mathematics	Macalester College	Fall 2008
MATH 135	Applied Calculus	Macalester College	Spring 2008
MATH 376	Algebraic Structures	Macalester College	Spring 2008
MATH 135	Applied Calculus	Macalester College	Fall 2007
MATH 394	Topics in Graph Theory	Macalester College	Fall 2007
MATH 320	Symbolic Programming Methods	Carnegie Mellon University	Spring 2007
MATH 127	Concepts of Mathematics	Carnegie Mellon University	Spring 2007
MATH 241	Matrix Algebra	Carnegie Mellon University	Fall 2006
MATH 126	Introduction to Mathematical Software	Carnegie Mellon University	Spring 2006
MATH 257	Models and Methods for Optimization	Carnegie Mellon University	Spring 2006
MATH 126	Introduction to Mathematical Software	Carnegie Mellon University	Fall 2005
MATH 127	Concepts of Mathematics	Carnegie Mellon University	Fall 2005
MATH 341	Linear Algebra	Carnegie Mellon University	Spring 1998
MATH 228	Discrete Mathematics	Carnegie Mellon University	Spring 1998
MATH 111	Calculus I	Carnegie Mellon University	Fall 1997
MATH 112	Calculus of Functions of One Variable I	Yale University	Summer 1997
MATH 120	Calculus of Functions of Several Variables	Yale University	Spring 1997
MATH 120	Calculus of Functions of Several Variables	Yale University	Fall 1995
MATH 115	Calculus of Functions of One Variable II	Yale University	Fall 1994

VIII. ADVISING AND SUPERVISION

Honors Advisor

Jorge Bañuelos 2010-2011
B.A. in mathematics, 2011 (expected)
A Simultaneous Random Walk Game

Meng Wang 2008-2009
B.A. in mathematics and economics, 2009
Extremal Random Walks on Trees
Received Konhauser Award for outstanding math major

Capstone Advisor

Michael Kapernaros 2009-2010
B.A. in mathematics, May 2010
Exact mixing times for regular graphs

James Leonard 2009-2010
B.A. in mathematics, December 2010
Combinatorial Games

Nianwei Qiu 2009-2010
B.A. in mathematics and economics, May 2010
Benford's Law

Casey Battaglini 2008-2009
B.A. in mathematics and computer science, 2009
Three Facility Location Algorithms and their Analysis using a Primal-Dual Schema

Peter Calhoun 2008-2009
B.A. in mathematics and economics, 2009
Expanding the Board Game *Risk* using Markov Chains
Received Capstone Prize for outstanding capstone presentation

Sean Cooke 2008-2009
B.A. in mathematics and computer science, 2009
Why am I in that class? Analyzing Macalester's First Year Course Assignment Problem

Caroline Ettinger 2008-2009
B.A. in mathematics and political science, 2009
Analyzing Legislative Voting Patterns
Received Capstone Prize for outstanding capstone presentation

Stiliyana Stamenova 2008-2009
B.A. in mathematics and computer science, 2009
Planning the Perfect Party: On the Connectivity of Extremal Ramsey Graphs
Received Konhauser Award for outstanding computer science major

Samuel Handler 2007-2008
B.A. in mathematics and computer science, 2008
Attributed Subgraph Matching

Michael McNulty 2007-2008
B.A. in mathematics and philosophy, 2008
Spectral Analysis of Cayley Graphs through Representation Theory

Andrey Russinov 2007-2008
B.A. in mathematics and economics, 2008
Exact Sampling Using Coupling from the Past

Honors Project Review Committee

Colin Welch 2010
B.A. in computer science, 2010
Measuring Balkanization in Wikipedia

Stiliyana Stamenova 2009
B.A. in mathematics and computer science, 2009
Solving the Maze: Robot Localization Using the Monte Carlo Localization Algorithm and Shape Context

Owen Anderson 2008
B.A. in mathematics and computer science, 2008
Compiler Optimizations for a Time-constrained Environment

Katherine Lim 2008
B.A. in mathematics and computer science, 2008
Post-election audits: statistical power based methods and a trigger for further auditing

Summer Research Advisor

Jorge Bañuelos 2010
B.A. in mathematics, 2011 (expected)
A Simultaneous Random Walk Game

Interdisciplinary Research Experience for Undergraduates 2010
Institute for Mathematics and its Applications
University of Minnesota
Leader of a research group of three undergraduates
Pursuit-evasion games on graphs

Bernd Verst 2008
B.A. in mathematics and computer science, 2008
Representations of the Partition Algebra
Received Ezra Camp Award for contributions to the department

Summer Undergraduate Applied Mathematics Institute 2006
Carnegie Mellon University
Co-leader of research group of five undergraduates
A simultaneous Markov chain game

Independent Study Supervisor

Jorge Banuelos B.A. in mathematics 2011 (expected) Graph Theory	Spring 2010
Mark Berman Non-traditional student, Macalester 1988 Linear Algebra	Summer 2009
Meng Wang B.A. in mathematics and economics, 2009 Random Walks on Trees	Fall 2008
Stiliyana Stamenova B.A. in mathematics and computer science, 2009 Extremal Ramsey Graphs	Spring 2008

Internship Sponsor

Wanyi Li B.A. in applied mathematics and statistics, 2012 (expected) <i>Math Curriculum Internship</i>	January 2010
Mo Liu B.A. in mathematics and economics, 2012 (expected) <i>Coopertative Energy Futures</i>	Fall 2009

IX. SERVICE

Service to profession

Ad-hoc referee for Discrete Mathematics (Elsevier), SIAM Journal on Discrete Mathematics, American Mathematical Monthly, Ars Combinatoria.

Logistical coordinator, Session on Extremal Combinatorics
American Mathematical Society Sectional Meeting
Macalester College, Saint Paul MN April 2010

Session Chair and Judge for Outstanding Presentation
Young Mathematicians Conference
The Ohio State University, Columbus OH August 2010

Service to Macalester College

Community Recognition Committee, Spring 2010. Member of committee to determine campus awards for community service.

Midterm Course Interviews. Served as primary interviewer (3 times) and scribe (4 times).

First Year Course Assignment (2009-present) Along with Sean Cooke (Macalester 2009), developed and implemented a computer algorithm to find the optimal course assignment. Each year, I work with the Office of Academic Programs to determine the first year course assignments for the incoming class.

Talking about Teaching. Presented session on “Authentic Assessment,” October 2009.

Service to the Department of Mathematics and Computer Science

<i>Organizer</i> , Department Seminar	2008-2010
<i>Organizer</i> , Konhauser Problemfest	2007-present
<i>Organizer</i> , C*SM*S Scavenger Hunt	2009-present
<i>Faculty Liaison</i> , MacMath, the student run math club	2009-present
<i>Committee Member</i> , Statistics Search [hired Alicia Johnson]	2008-2009
<i>Committee Member</i> , Computer Science Search [hired Shilad Sen]	2007-2008
<i>Organizer, Contributor</i> , Problem of the Week	2008, 2010

X. MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Mathematical Society

Mathematical Association of America