

# Michael A. Jones

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## Employment History

- 2003-present Associate Professor, Mathematical Sciences, Montclair State University, Montclair, NJ  
1998-2003 Assistant Professor, Mathematical Sciences, Montclair State University, Montclair, NJ
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- 2005-present Adjunct Professor, Department of Politics, New York University, New York, NY  
(Teaching graduate level game theory)  
2001-2004 Visiting Scholar, Department of Politics, New York University, New York, NY  
1997-1998 Visiting Assistant Professor, Mathematical Sciences, Loyola University, Chicago, IL  
1994-1997 Assistant Professor, Mathematical Sciences, US Military Academy; West Point, NY  
1996 Adjunct Professor, MBA Program, Mt. Saint Mary College, Newburgh, NY

## Service Positions

- 2005-present Graduate Chair, Mathematical Sciences, Montclair State University, Montclair, NJ
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- 2005-present Member Editorial Board, *The College Mathematics Journal*  
2003-present Member Editorial Advisory Board, MAA Spectrum Book Series  
2006-present Member Editorial Advisory Board, *PRIMUS*  
2003-present Book Sale Coordinator, NJ Section of the MAA  
2003-2005 Public Information Office (Webmaster), NJ Section of the MAA

## Education

- PhD Mathematics, Northwestern University, Evanston, IL, June 1994  
Dissertation: Indefinitely Repeated Games and Cooperation  
Committee: Donald G. Saari (Advisor), Ehud Kalai, and Sandy Zabell
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Traditional course work in mathematics, as well as the requisite doctoral courses from the Managerial Economics and Decision Sciences program at the Kellogg Business School; member of the Mathematical Methods in the Social Sciences Program (1991-1993).  
M.A. in Mathematics awarded June 1991

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- BS Mathematics, Santa Clara University, Santa Clara, CA, June 1989, *magna cum laude*  
Jerry L. Alexanderson (Advisor). Honors Program, Pi Mu Epsilon, Sigma Xi, Phi Beta Kappa

## Research Mentoring Accomplishments

- Masters Thesis Advisor; Kei Kaneko, August 2004, On the P/N Structure of Nim.
- Co-director and co-founder of Research Opportunities for Commuter Students (ROCS), an in-house, academic-year REU for undergraduate students at Montclair. Besides research experience, students learn LaTeX, Maple, and presentation software. Student prepare technical reports, give talks and poster presentations on their research.
- Mentored ROCS student Brittany Shelton who was among the winners of the January 2006 Undergraduate Poster Competition at the Joint Math Meetings of the AMS/MAA in San Antonio, TX for her poster "Nimber Sequences with No Preperiods for Three-Element Subtraction Sets."
  - Articles with undergraduate students: 2 published, 1 submitted, and 1 in draft form.
  - Articles with graduate students: 2 published.

## Current Research Interests

- Fair Division: Analytic and combinatorial aspects; design of mechanisms to award travel funding
- Geometry of Voting: classification of power paradoxes in voting games; preferences from incomplete information
- Linear Algebra: multi-linear extensions and power in multi-choice games; inversion formulas for sequences
- Combinatorial game theory: patterns of optimal play in single pile Nim; role of knowledge in optimal play
- Functional Analysis: Frechet derivative approach to game theory

## Popular Press Coverage

- Ben Stein (American Institute of Physics) refers to The Pythagorean Theorem of Baseball and Alternative Models in Inside Science News Service “Streamlining the ‘Pythagorean Theorem of Baseball’” (3/29/04): <http://www.aip.org/isns/reports/2004/007.html>
- Wall Street Journal’s Science Journal “Pigskin Overtime Rules And Beaned Batters Spur Math Theorems” by Sharon Begley refers to the articles: Win, Lose, or Draw: A Markov Chain Analysis of the National Football League’s Overtime Rules and The Pythagorean Theorem of Baseball and Alternative Models (1/9/04; pA07, first page of Market Place section)
- Nature Online’s “Cake Cutting Perfected” by Philip Ball refers to the article: Perfect Cake-Cutting Procedures with Money (1/7/04): <http://www.nature.com/nsu/040105/040105-3.html>

## Grants, Awards, and Fellowships

### Montclair State University

- NSF CCLI A&I: A Sophomore-Level Transition Course. With A. Mukherjee (NSF DUE #0310753); July 2003-July 2005; \$52,000.
- Sokol Faculty/Student Research Award: ‘Explicitly Determining the Relationship between Implicit Learning and the Complexity of Artificial Grammars. Summer 2003; \$2000.
- Separately Budget Research Grant for Summer 2001: Reputation in Game Theory. \$2,000.
- GRIPSAM Grant for Summer 2001: A priori Quota Selection in Simple Weighted-Voting Games. \$2,000.
- Student Faculty Research Grant for Summer 1999: Determining the Properties of Numbers in a Cryptographic Method to Eliminate False Positives. \$2000.

### US Military Academy

- Superior Civilian Service Award, for “... outstanding instruction and leader development ... ” May 1997.
- Army Research Office Grant for the proposal “A Dynamic Model of a Continuous Blotto Game,” 1995-1996; \$1,500.
- Faculty Development Research Fund Grant for the proposal “The Geometry of Allocations,” 1994-1995; \$1,500.

### Northwestern University

- Summer Research Support under NSF grant IST 9103180, Summer 1993; \$2,000.
- Mathematics Departmental Fellowship, 1990-1991; 1993-1994; University Fellowship, 1989-1990.
- Assistantship in the Mathematical Methods in the Social Sciences Program, 1991-1993.

## Publications

- Better Ways to Cut a Cake. S.J. Brams, M.A. Jones and C. Klamler. *Notices of the AMS*, 53, 1314-1321.
- Graph Theory and Finite Dynamical Systems from Solitaires and Games. M.A. Jones. *Graph Theory Notes of New York*, LI, (to appear, Fall 2006).
- Shift-Induced Dynamical Systems on Compositions and Partitions. B. Hopkins and M.A. Jones. *Electronic Journal of Combinatorics*. Volume 13 (1) 2006, #R80 (19 pages).
- Coloring and Counting Rectangles on the Board. M.A. Jones and M. Munakata. Discrete Mathematics Resource Guide (Ed. by B. Hopkins), MAA Notes Volume (to appear).
- Discrete and Continuous Models for the Evolution of Lizard Populations. M.A. Jones and A. Mukherjee. Section 6.5, p. 340-348, in *Mathematical Modelling: Education, Engineering and Economics (ICTMA 12)*, (Ed. by C. Haines, P. Galbraith, W. Blum, and S. Khan) Chichester: Horwood Publishing ISBN: 1-904275-20-6, 2006.
- Emphasizing the NCTM Content Standards in Undergraduate Courses for Prospective Teachers. E. Fernandez and M.A. Jones. *Mathematics and Computer Education*. 40, 3 (Fall 2006), 237-247.
- The Sprinkler Problem: A Mathematician Waters the Lawn. M.A. Jones and J.L. Stonick. *The Mathematical Gazette*, 90, 517 (March 2006), 50-56.
- Forming Stable Coalitions: The Process Matters. S. Brams, M.A. Jones, and D.M. Kilgour. *Public Choice* 125, 1-2 (2005), 67-94.
- Integrating Combinatorics, Geometry, and Probability through the Shapley-Shubik Power Index. M.J. Haines and M.A. Jones. Section 3.4, p. 143-162, in *Innovative Approaches to Undergraduate Mathematics Courses Beyond Calculus* (Ed. by R.J. Maher), MAA Notes, Vol. 67, October 2005.
- A Proofs Course that Transitions Students to Advanced, Applied Mathematics Courses. M.A. Jones and A. Mukherjee. Section 1.5, p. 39-52, in *Innovative Approaches to Undergraduate Mathematics Courses Beyond Calculus* (Ed. by R.J. Maher), MAA Notes, Vol. 67, October 2005.
- Nim-Induced Dynamical Systems over  $\mathbb{Z}_2$ . M.A. Jones and D.M. Thomas. *Discrete and Continuous Dynamical Systems* (Aug. 2005), 453-462.
- The Pythagorean Theorem of Baseball and Alternative Models. M.A. Jones and L. Tappin. *The UMAP Journal* 25, 2 (2005), 25-36.

- Controlling Wound Healing through Debridement. M.A. Jones, B. Song, and D.M. Thomas. *Mathematical and Computer Modelling* 40, n9-10 (2004), 1057-1064.
- Win, Lose, or Draw: A Markov Chain Analysis of the National Football League's Overtime Rules. M.A. Jones. *College Mathematics Journal* V35, n5 (Nov. 2004), 330-336.
- Reputation, Compliance, and Development. G.W. Downs and M.A. Jones. Chapter 5, p. 117-133, in *The Impact of International Law on International Cooperation: Theoretical Perspectives*. (Ed. by Eyal Benvenisti and Moshe Hirsch), Cambridge University Press, September 2004.
- A Sophomore-Level Transitions Course: Pedagogy, Projects, and Evaluation. M.A. Jones, A. Mukherjee, and G. Weinstein. Proceedings of the Hawaii International Conference on Statistics, Mathematics, and Related Fields, June 9-12, 2004.
- Fairness, How to Achieve It, and How to Optimize in a Fair Division Procedure. M.A. Jones and S.F. Cohen. *Mathematics Teacher* V97, n3 (March 2004), 170-174.
- Connecting Fair Division and Game Theory through the Optimization of Knaster's Procedure. M.A. Jones *PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies)*. Vol XIII, n4 (Dec. 2003), 321-336.
- Partitioning Triangular Numbers. M.J. Haines and M.A. Jones. *College Mathematics Journal* V34, n4 (Sep. 2003), 295.
- Dynamic Models of Coalition Formation: Fallback vs. Build-Up. S. Brams, M.A. Jones, and D.M. Kilgour. Proceedings of the Ninth TARK (Theoretical Aspects of Rationality and Knowledge) Conference, edited by M. Tennenholtz, (June 2003) 187-200; also in: *Graph Theory Notes of New York*, XLV (Nov. 2003), 32-40.
- Proof without Words: Nonnegative Integer Solutions and Triangular Numbers. M.J. Haines and M.A. Jones, *Mathematics Magazine* V75, n5, (Dec. 2002), 388.
- Proof of a 'Possibly New' Definition of a Circle in Reader Reflections. M.A. Jones. *Mathematics Teacher* V95, n8 (Nov. 2002), 642.
- Equitable, Envy-free, and Efficient Cake Cutting for Two People and Its Application to Divisible Goods. M.A. Jones, *Mathematics Magazine* V75, n4 (Oct, 2002), 275-283.
- Single-Peakedness and Disconnected Coalitions. S. Brams, M.A. Jones, and D.M. Kilgour. *Journal of Theoretical Politics*, V14, n3 (July 2002), 361-386.
- Reputation, Compliance, and International Law. G.W. Downs and M.A. Jones. *Journal of Legal Studies* (Special Issue on Rational Choice and International Law) V31, n1, Part 2 (Jan. 2002) S95-S114.
- The Wallet Paradox Revisited. M. Carroll, M.A. Jones, and E. Rykken. *Mathematics Magazine* V74, n5 (Dec. 2001) 378-383.
- General Flip-Shift Games, J.G. Cheong, M.A. Jones, and K. Kaneko (Cheong and Kaneko are two undergraduate students). *Pi Mu Epsilon Journal* Vol 11, n5 (Dec. 2001) 229-239.
- The Complexity of Artificial Grammars. E. Bollt and M.A. Jones. *Nonlinear Dynamics, Psychology, and Life Sciences* V4, n2 (April 2000) 153-168.
- Eliminating False Positives in a Cryptographic Method. A.M. Daddea and M.A. Jones (Daddea is an undergraduate student). *Pi Mu Epsilon Journal* Vol 11, n3 (2000) 125-133.
- Emphasizing Saddle Points through Game Theory: A Classroom Activity. J. Dorrington and M.A. Jones. *PRIMUS (Problems, Resources, and Issues in Mathematics Undergraduate Studies)*. Vol X, n3 (2000) 206-218.
- The Effect of Punishment Duration of Trigger Strategies and Quasifinite Continuation Probabilities for Prisoners' Dilemmas. M.A. Jones, *International Journal of Game Theory*. V28 n4 (1999) 533-546.
- The Mathematical Control of Sleep/Wake Cycles. M.A. Jones and D. Thomas. Proceedings of the Second Regional Conference on Quantitative Reasoning Across the Disciplines, 95-123. March 6, 1999.
- Cones of Cooperation, Perron-Frobenius Theory, and the Indefinitely Repeated Prisoners' Dilemma. M.A. Jones, *Journal of Mathematical Economics* V30, n2 (Sep. 1998) 187-206.
- Interviewing for a Job in Academia. T. Hull, M.A. Jones, and D. Thomas. *Notices of the AMS* (1998) 1353-1357.
- Communication Networks with Varying Capacities: Examples and the Effects of Variance. M.A. Jones, Proceedings of the Fourth Annual Army Research Lab (ARL)/USMA Technology Symposium, October 1996.
- An Infinite Horizon Dynamic Programming Approach to Communication Networks with Varying Capacities. M.A. Jones and C. Pehlivanian. Proceedings of the Third Annual ARL/USMA Technology Symposium, November 1995.
- SUBMITTED
- Proportional Pie-Cutting. S.J. Brams, M.A. Jones and C. Klamler. Submitted; December 2005.
- Bowling with the Binomial Theorem. M.A. Jones and M. Munakata. Submitted; June 2006.
- Exponential Removal Games. M.A. Jones and K. Kaneko. Submitted; June 2006.
- Redundancy in Nimber Sequences for Three-Element Subtraction Sets. S.R. Huddy, M.A. Jones and B.C. Shelton. Submitted; June 2006.
- Geometric and Combinatorial Proofs of Two Triangular Identities. M.J. Haines and M.A. Jones. Submitted; June 2006.

## Book Reviews

Games and Decision Making by Aliprantis and Chakrabarti. Spring 2002: *Math. and Computer Educ.* 36(2):195-197.  
The Mathematical Universe by W. Dunham. Fall 1999: *Math. and Computer Educ.* 33(3):298-300.  
Calculating and Computing for Social Science and Arts Students by R. Solomon and C. Winch. Winter 1996: *Math. and Computer Educ.* 30(1):107-108.  
Introduction to Analysis (4th Edition) by E. Gaughan. Fall 1995: *Math. and Computer Educ.* 29(3):330-331.

## Presentations

Graph Theory and Finite Dynamical Systems from Solitaires and Games

- Invited plenary speaker. Graph Theory Day 51. Montclair State University. Montclair, NJ. May 2006.

Shift-Induced Dynamical Systems on Compositions and Partitions

- Mathematics Colloquium. Southern Illinois University Carbondale. Carbondale, IL. April 2006.

A Voting Theory Approach to Golf Scoring

- Mathematics Student Colloquium. Southern Illinois University Carbondale. Carbondale, IL. April 2006.
- Pi Mu Epsilon Induction Ceremony. Saint Peter's College. Jersey City, NJ. April 2006.

Proportional Pie-Cutting

- AMS Contributed Paper Session, AMS/MAA Joint Meetings, San Antonio, TX. January 2006.
- International Game Theory Conference. 16th Summer Festival on Game Theory. Stony Brook, NY. July 2005.

Scoring Rules for Golf

- MAA Session on Mathematics of Sports and Games, AMS/MAA Joint Meetings, San Antonio, TX. Jan. 2006.

Geometric Classification of Paradoxes of Voting Power

- Voting Power and Procedures Programme Workshop, University of Warwick, UK. July 2005.
- Public Choice Society Meetings, New Orleans, LA. March 2005.
- MAA NJ Section Meeting: Session on Applications to Social Sciences and Finance, Middlesex, NJ. March 2005.

Dynamics of Nim Induced Difference Equations

- AMS-SIAM Special Session on Dynamic Equations on Time Scales; Integer Sequences and Rational Maps. AMS/MAA Joint Meetings, Atlanta, GA. January 2005.
- Department of Mathematics Colloquium, Clarkson University, Potsdam, NY. January 2005.
- Department of Mathematics and Computer Science Colloquium, Lafayette College, Easton, PA. February 2005.
- Department of Mathematics Colloquium, Adelphi University, Garden City, NY. February 2005.
- Department of Mathematics Colloquium, SUNY Orange, Middletown, NY. April 2005.

Sequences of P/N Positions in Nim without Preperiods.

- Contributed Paper in Advances in Recreational Mathematics, MAA MathFest, Providence, RI. August 2004.

Perfect Cake-Cutting Procedures with Money.

- Public Choice Society Meetings, Baltimore, MD. March 2004.

Forming Stable Coalitions from Preferences over Coalition Partners.

- AMS Special Session on The Many Lives of Lattice Theory and the Theory of Ordered Sets, with Connections to Combinatorics, AMS/MAA Joint Meetings, Phoenix, AZ. January 2004.

Whether You Win or Lose, It's How the Overtime is Played: A Markov Chain Analysis of the NFL's Overtime Rules.

- MAA Session on Mathematics and Sports, AMS/MAA Joint Meetings, Phoenix, AZ. January 2004.

A Sophomore-Level Transition Course

- Poster Session for NSF DUE Grants, AMS/MAA Joint Meetings, Phoenix, AZ. January 2004.

Using the Writing Process to Help Teach the Mathematical Modeling Process.

- MAA Session on Mathematical Modeling, AMS/MAA Joint Meetings, Baltimore, MD. January 2003.

A Common Question Yields an Answer in Content: Finding the NCTM Content Standards in Undergraduate Mathematics.

- MAA Contributed Paper Session, AMS/MAA Joint Meetings, Baltimore, MD. January 2003.

Optimization of Knaster's Procedure and How to Use it as a Transition to Game Theory for a Liberal Arts Math Course

- Invited, Session on Innovative Methods in Courses Below Calculus, MathFest, Burlington, VT. August 2002.

Forming Stable Coalitions: The Process Matters.

- Public Choice Society Meetings, San Diego, CA. March 2002.
- American Political Science Association Meetings, Boston, MA. September 2002.

Equitable, Envy-free, and Efficient Cake Cutting for Two People and Its Application to Discrete Goods.

- Contributed paper session, AMS/MAA Joint Meetings, San Diego, CA. January 2002.
- Panel on Fair Division, Society for Economic Design Meetings, New York, NY. July 2002.
- Invited, Department of Mathematics Colloquium, Adelphi University, Garden City, NY. November 2002.

The Mathematics of Flip-Shift Puzzles.

- Invited to speak in Science Seminar Series, Sarah Lawrence College, Bronxville, NY. October 2001.
- As part of the CSAM Visiting Professor Series, Dover High School, Dover, NJ. December 2001.

#### Integrating Combinatorics, Geometry, and Probability through the Shapley-Shubik Power Index

- Contributed Paper on Innovative Methods Beyond Calculus, MAA MathFest, Madison, WI. August 2001.

#### Geometric Implications of the Shapley-Shubik Power Index

- Public Choice Society Meetings, San Antonio, TX. March 2001.
- International Game Theory Conference. 12th Summer Festival on Game Theory. Stony Brook, NY. July 2001.

#### The Paradox of Disconnected Coalitions

- Midwest Political Science Association Annual Meetings. Chicago, IL. April 2000.
- International Game Theory Conference. 11th Summer Festival on Game Theory. Stony Brook, NY. July 2000.

#### The Effect of Uncertainty and Punishment on Cooperation in Repeated Prisoners' Dilemmas

- Mathematics Department Colloquium, Towson University. Towson, MD. December 2000.
- Mathematics Department Colloquium, Hunter College (CUNY). New York, NY. March 2000.

#### A Continuous Version of the Dodgson Winner

- Mathematical Association of America: New Jersey Section Meeting. Trenton, NJ. April 1999.

#### The Mathematical Control of Sleep/Wake Cycles

- Invited to speak as part of a Contributed Paper Session at MathFest (MAA), Providence, RI. July 1999.
- Invited to speak at Mathematics Awareness Month. University of Scranton. Scranton, PA. April 1999.
- Second Regional Quantitative Reasoning Across the Disciplines Conference. Stockton College, NJ. March 1999.

#### Perron-Frbenius Theory and the Repeated Prisoner's Dilemma.

- American Mathematical Society Joint Meetings. San Diego, CA. January 1997.

#### Developing Symbolic Dynamics to Measure the Complexity of Repeated Game Strategies by Topological Entropy.

- Midwest Mathematical Economics and International Trade Meetings. St. Louis, MO. October 1996.

#### Communication Networks with Varying Capacities: Examples and the Effects of Variance.

- Fourth Annual ARL/USMA Technology Symposium. Adelphi, MD. October 1996.

#### The Classification of Continuation Probabilities.

- International Game Theory Conference. 7th Summer Festival on Game Theory. Stony Brook, NY. July 1996.
- Social Choice and Welfare. Maastricht, Netherlands. June 1996.
- American Mathematical Society Joint Meetings. San Francisco, CA. January 1995.

#### A Dynamic Model of a Continuous Blotto Game that leads to Extreme, Close Policy Positions.

- International Workshop on Game Theory and Politics. Santiago de Compostela, Spain. July 1996.
- Public Choice Society Conference. Houston, TX. March 1996.

#### Cones of Cooperation for Indefinitely Repeated, Generalized Prisoner's Dilemma Games.

• New Directions in the Theory of Markets and Games (In Honor of R. Aumann). Toronto, Canada. October 1995.

- Midwest Mathematical Economics and International Trade Meetings. Minneapolis, MN. October 1995.
- Public Choice Society Conference. Long Beach, CA. March 1995.

#### An Infinite Horizon Dynamic Programming Approach to Comm. Networks with Varying Capacities.

- Third Annual ARL/USMA Technology Symposium. November 1995.

#### Cones of Cooperation and Their Use to Substantiate Intuition and Compare Correlated Strategies.

- Southeast Economic Theory and International Trade Conference. Charlottesville, VA. November 1994.
- Midwest Mathematical Economics and International Trade Meetings. Ann Arbor, MI. May 1994.

### **Additional Service for Mathematical Association of America**

- Co-Organizer/Presider; MAA General Contributed Paper Session; Joint Meetings, Phoenix, AZ, January 2004.
- Organizer/Presider; MAA General Contributed Paper Session; Joint Meetings, Baltimore, MD, January 2003.
- Organizer/Presider; MAA-NJ Contributed Paper Session; Popular and Recreational Mathematics, March 2004.

### **Other Experience and Service**

• Referee for *Discrete Mathematics*, *Discrete Applied Mathematics*, *Games and Economic Behavior*, *Mathematics Magazine*, *Brain Research Bulletin*, *Social Choice and Welfare*, *PRIMUS*, *Journal of Politics*, Computer Information Systems Conference 2004, *College Mathematics Journal*, and *Mathematical Social Sciences*.

• Graded, by invitation, the 56th, 59th, 60th, 62nd, and 65th Annual International William Lowell Putnam Competitions, Decembers 1995, 1998, 1999, 2001, and 2004.

• Judged, by invitation, the 28th, 29th, 31st, 32nd, 33rd, 35th, and 36th Annual Greater Metropolitan New York Area Math Fairs. Pace University, NY. March of 1996, 1997, 1999, 2000, 2001, 2003, and 2004.

• Research Advisor (to 2 high school students); Weston Scholars Science program; Summer 2005. Lecturer; Summers 2004 and 2006.

• Panel Member for Project NexT's Fun, Fame, and Fortune: Advising Students on Mathematical Competitions; Joint Meetings, Phoenix, AZ, January 2004.

- Member of the Doctoral Committee (preparing proposal for a doctoral program in mathematics), AYs 2004-present.
- Member of Pure and Applied Math Search Committee, AYs 2002-2006.
- Member of Department Personnel Advisory Committee - evaluate candidates for reappointment, tenure, and promotion, AY 2003-2006.
- Member of the Undergraduate Curriculum Committee, AY 2002-2003.
- Chairperson of the Special Interest Group in Pure and Applied Mathematics in the Department of Mathematical Sciences at Montclair State University. Academic Years 2000-2002. (administrative responsibilities)
- Member of the Assistant Dean Search Committee, AY 2001-2002.
- Math 106 Course Coordinator 2000-present. Wrote the accepted GER proposal for this course.
- Academic Adviser to 15 undergraduate students, each semester at Montclair State University.
- Math Club Adviser; Montclair State University, Upper Montclair, NJ. Academic Years 1998-2000. Including the initiation of the Biweekly Mathematics Problem Contest.
- Appeared on the national radio program, "Math Medley," as part of the program: Mathematics Reform at the University Level. February 1999.
- Faculty Sponsor for a team in the COMAP Mathematical Competitions in Modeling. February 1999 & 2001.
- Math Club Adviser; Loyola University, Chicago, IL. Fall 1997 and Winter 1998.
- Pi Mu Epsilon Honor Society Faculty Adviser; Loyola University, Chicago, IL. Fall 1997 and Winter 1998.
- Member of MBA Thesis Committee; Mt. Saint Mary College, Newburgh, NY. Fall 1996.
- Performed research for Army Research Labs, Directorate of Signals and Information Technology. Summers 1995 and 1996.
- Editor, *Mathematica Militaris*, Bulletin of the Mathematics Departments of the Federal Service Academies. 1994 - 1996.
- Organized an interdisciplinary Mathematics Seminar with members from the Economics, Mathematics, and Computer Science Departments, USMA, Fall 1995 - Fall 1996.

### Professional Societies and Organizations

- Currently: Mathematical Association of America and American Mathematical Society.
- Previously: Society for Chaos Theory in Psychology and the Life Sciences, American Economic Association, Society for Economic Design, and Game Theory Society.

### References

Professor Donald G. Saari  
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 Department of Mathematical Sciences  
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 Department of Mathematical Sciences  
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