

TAMER ORABY

Department of Mathematical Sciences,
University of Cincinnati,
2855 Campus Way, PO Box 210025,
Cincinnati, OH 45221-0025, USA

Tel: (513) 307-2392
Fax: (513) 556-3417
orabyt@math.uc.edu
www.math.uc.edu/~orabyt

Education

- **University of Cincinnati**—Department of Mathematical Sciences
Cincinnati, OH
 - **Ph.D.** Defended-Expected graduation: **2008**
 - Adviser: Prof. Wlodzimierz Bryc
 - Dissertation title: “Spectra of Random Block-Matrices and Products of Random Matrices”
- **Cairo University**—Department of Mathematics
Cairo, Egypt
 - **M.Sc.** in Mathematical Statistics-**April 2002**
 - Adviser: Prof. Mokhtar Konsowa
 - Thesis title: “Fractal dimension, resistance dimension, random walk dimension, and k-fuzz graphs”
- **Cairo University**—Department of Mathematics
Cairo, Egypt
 - **B.Sc.** in Mathematical Statistics-**May 1997**
 - summa cum laude

Research Areas

- Random matrices
- Random walk

Academic Experience

- **University of Cincinnati**—Department of Mathematical Sciences
Cincinnati, OH
 - **Instructor:**
 - math-147 Elementary Probability and Statistics I-Fall **2007**
 - math-362 Probability and Statistics II- **Summer 2007**
 - math-149 Elementary Probability and Statistics III- **Spring 2007**
 - math-148 Elementary Probability and Statistics II-**Winter 2007**
 - math-147 Elementary Probability and Statistics I- **Fall 2006**
 - math-362 Probability and Statistics II-**Summer 2006**
 - math-361 Probability and Statistics I- **Summer 2004**
 - **Teaching assistant-January 2003 to June 2005:**
 - Linear Algebra- Calculus I, II, IV - Finite mathematics - Topics in Mathematics I, II, III

- **Cairo University**—Department of Mathematics
Cairo, Egypt
 - **A full time faculty- September 1997 to December 2002:**
Calculus- Different courses of probability and statistics from introductory to advanced levels

Career Preparation

- Preparing Future Faculty Program, University of Cincinnati
15-MLTI-841-Effective Teaching Colloquium- **Fall 2006**
15-MLTI-842-Academic Job Search- **Winter 2007**

Honors and Awards

- **University of Cincinnati**—Department of Mathematical Sciences
Cincinnati, OH
 - The Kieval Award for Outstanding Graduate Assistant- **2006-2007**
 - Taft Advanced Graduate Fellowship - school year **2005-2006**
 - Taft Enhancement Award- school year **2005-2006**
 - URC Summer Graduate Student Research Fellowship - **Summer 2005**
 - Taft Enhancement Award- school year **2004-2005**
- **Cairo University**—Department of Mathematics
Cairo, Egypt
 - Student Awards for Excellence - **September 1993 - May 1997**

Papers

- **Published**
 1. Resistance dimensions of branching processes in varying environments trees (with Mokhtar H. Konsowa), *Statistics and Probability Letters*, 78(1): 67-74, 2008.
 2. The limiting spectra of Girko's block-matrix, *Journal of Theoretical Probability*, 20: 959-970, 2007.
 3. The spectral laws of Hermitian block-matrices with large random blocks, *Electronic Communications in Probability*, 12: 465-476, 2007.
 4. Fractal dimensions and random walks on random trees (with Mokhtar H. Konsowa), *Journal of Statistical Planning and Inference*, 116(2): 333-342, 2003.
 5. Dimensions of random trees (with Mokhtar H. Konsowa), *Statistics and Probability Letters*, 62(1): 49-60, 2003.
- **In Press**
 1. On slow-fading MIMO systems with non-separable correlation (with R. Rashidi Far, W. Bryc, and R. Speicher). *To appear in IEEE IT.*

Talks

- **Colloquiums**
 1. Spectra of large random block-matrices, University of Tennessee, Knoxville-**February 28, 2007**

- **Invited special session talk**
 1. Spectra of random block-matrices, AMS meeting at Miami University, Oxford, OH -**March 16-17, 2007**
 2. The limiting spectral distribution of random block-matrices, AMS meeting at University of Cincinnati- **October 21-22, 2006**
- **Poster**
 1. The limiting spectra of random block-matrices, 2006-07 Program on High Dimensional Inference and Random Matrices -The Opening Workshop, SAMSI, NC-**September 17-20, 2006**
- **Seminars at UC**
 1. Random walks on random trees and their fractal dimension - **March 3, 2004**
 2. The limiting spectral laws of block Toeplitz random matrices - **November 29, 2004**
 3. The semicircle law - **February 14 & 28, 2005**
 4. Limiting distribution of matrices with weakly dependent entries -**October 5, 2005**
 5. The limiting spectra of Girko's block-matrix - **January 23, 2006**
 6. Free multiplicative convolution - **April 17, 2006**
 7. Limiting spectra of random block matrices - **May 22, 2006**
 8. On Shoshnikov's approach to maximal eigenvalue problem - **February 19, 2007**

Skills

- **Computer Skills:**
 - Statistical Packages: SAS and SPSS.
 - Mathematical Softwares: Mathematica and Matlab.
- **Teaching:**
 - Electronic classroom, calculators and applets.

Professional Membership

- American Mathematical Society (AMS)- **2003-present**
- Institute of Mathematical Statistics (IMS)- **2005-present**
- Mathematical Association of America (MAA)- **2007-present**

References

- Professor Wlodzimierz Bryc
 Department of Mathematical Sciences
 University of Cincinnati
 2855 Campus Way, PO Box 210025
 Cincinnati, OH 45221-0025
 Tel: (513) 556 4098
 E-Mail: brycw@math.uc.edu

- Professor Joanna Mitro
Department of Mathematical Sciences
University of Cincinnati
2855 Campus Way, PO Box 210025
Cincinnati, OH 45221-0025
Tel: (513) 556 4087
E-Mail: mitroj@math.uc.edu
- Professor Magda Peligrad
Department of Mathematical Sciences
University of Cincinnati
2855 Campus Way, PO Box 210025
Cincinnati, OH 45221-0025
Tel: (513) 556 3417
E-Mail: magda.peligrad@UC.Edu
- Professor Patrick McSwiggen
Department of Mathematical Sciences
University of Cincinnati
2855 Campus Way, PO Box 210025
Cincinnati, OH 45221-0025
Tel: (513) 556 4055
E-Mail: Pat.McSwiggen@UC.Edu