

## VITA

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### Education

Ph.D. August 2000                      Advisor: John B. Conway  
   Title: *Unbounded Bergman Operators*  
   University of Tennessee, Knoxville

M.S. March 1993                        Advisor: Lennart Carleson  
   Title: *A Study of the Mandelbrot Set*  
   Royal Institute of Technology, Stockholm

### Positions

2007 – present                          Assistant Professor, University of South Florida, Tampa  
2003 – 2007                              Assistant Professor, University of South Alabama, Mobile  
2002 – 2003                              Visiting Assistant Professor, University of Louisville, Kentucky  
2000 – 2002                              Postdoctoral Position, Virginia Tech, Blacksburg  
1994 – 2000                              Graduate Teaching Associate, University of Tennessee, Knoxville  
1990 – 1994                              Instructor, Department of Mathematics, RIT, Stockholm, Sweden  
1989 – 1994                              Instructor, Department of Theoretical Physics, RIT, Stockholm, Sweden

### Grants and Awards

- National Science Foundation Grant DMS–0500916                      2005 – 2009                      \$65,100.  
    *Structural Analysis and Properties of Unbounded Bergman Operators*
- National Science Foundation Grant DMS 0849032                      March 20–22, 2009                      \$23,820.  
    *Partial support for SEAM XXV (with C. Beneteau, T. Bieske, and D. Khavinson)*
- USF CAS Conference Coordination    March 20–22, 2009                      \$990.  
    *Award for SEAM XXV (with C. Beneteau, T. Bieske, and D. Khavinson)*
- Nominee for Dorothea and Edgar Eaves Teaching Award                      2000.
- Center of Excellence - Science Alliance Fellowship                      1994–2000.
- Summer Research Fellowship Award, University of Tennessee                      1996–2000.
- Teaching Award for Physics & Computer Engineering majors, RIT, Stockholm 1993.
- Outstanding Undergraduate Student Award, Galofstiftelsen-Stockholm Sweden, 1990–1991.

## Publications

Beneteau, C.; Carswell, B. J.; and Kouchekian, S. “Extremal problems in the Fock space”, *To appear in Computational Methods and Function Theory*

Kouchekian, S.; Passian, A.; Simpson, H.; and S. Yakubovich. On the Orthogonality of the McDonald’s Functions. *J. Math. Anal. Appl.* **360** (2009) 380–390.

Kouchekian, S. and Prokhorov, V. A. On estimates for the ratio of errors in best rational approximation of analytic functions. *Trans. Amer. math. Soc.* **361** (2009), 2665–2677.

Kouchekian, S. and Thomson, J. E. On self-commutators of Toeplitz operators with rational symbols. *Studia Math.* **170** (2007), no. 1, 41–47.

Kouchekian, S. and Thomson, J. E. The density problem for self-commutators of unbounded Bergman operators. *Integral Equations and Operator Theory* **57** (2005), 135–147.

Conway, J. B.; Jin, K. H.; and Kouchekian, S. On unbounded Bergman operators. *J. Math. Anal. Appl.* **279** (2003), 418 – 429.

Kouchekian, S. The density problem For unbounded Bergman operators. *Integral Equations and Operator Theory* **45** (2003), 319–342.

Kouchekian, S.; Passian; Ferrel, T. A. Dynamics of Self-Driven Microcantilevers. *Journal of Applied Physics* **91** (2002) 4693–4700.

## Submitted

Kouchekian, S. and Thomson, J. E. A Note on Density for the core of Unbounded Bergman Operators.

Kouchekian, S.; Passian, A.; Simpson, H.; S. Yakubovich; Thundat, T. Properties of index transform in modeling of nanostructures and plasmonic systems..

## Preprints

Kouchekian, S.; Passian, A.; Ferrel, T. L. An Infinite Integral Expansion with Application to Boundary Value Problems of Potential Theory.

Kouchekian, S.; Thomson, J. E. A Functional Calculus for Unbounded Bergman Operators.

## Professional Services

- Organizer of a special session in *Joint Mathematics Meetings*, Washington, D.C. 2009.
- Organizer of *Southeastern Analysis Meeting*, (SEAM XXV), USF, March 2009.
- Program Reviewer of Mathematics and Math Ed graduate program for Florida Memorial University, Mathematics Department, Miami (October 2008).
- Member of the American Mathematical Society.
- Member of Mathematical Association of America.
- Referee for the Proceedings of the American Mathematical Society; Integral Equations and Operator Theory; Journal of Mathematical Analysis and Applications; Journal of Approximation Theory.
- Judge for Mobile Regional Science Fair, Spring 2006.
- Referee for Annual Mobile Math Olympiad.

## Presented Talks

- Colloquium Talk, Department de Matematicas Fundamentales, UNED University, Madrid, Spain, June 12, 2009.
- Sixth Advanced Course in Operator Theory and Complex Analysis, University of Seville, Spain, June 10, 2009.
- Lecture Series in Espacios de Funciones Analiticas y Teoria de Operadores, University of Seville, Spain, June 4, 2009.
- Lecture Series in Espacios de Funciones Analiticas y Teoria de Operadores, University of Seville, Spain, May 28, 2009.
- Spring School of Functional Analysis (EPAF09), Morocco, Rabat, May 23, 2009.
- International Workshop of Operator Theory and Its Applications (IWOTA 2008), College of William and Mary, Williamsburg, July 22, 2008.
- Colloquium Talk, Department of Mathematics, George Washington University, Dec. 2006.
- SEAM XXII (Southeastern Analysis Meeting), University of Florida, Gainesville, Mar. 2006
- Colloquium Talk, Department of Mathematics, Univ. of South Alabama, Feb 2004.
- AMS Southeastern Section Meeting, Univ. of North Carolina at Chapel Hill, Oct. 2003
- SEAM XVIII (Southeastern Analysis Meeting), Univ. of North Carolina at Chapel Hill, Mar 2002
- Colloquium Talk, Department of Mathematics, Bowling Green State University, Feb 2002.
- VOTCAM (Virginia Operator Theory & Complex Analysis Meeting), Univ. of Richmond, Oct 2001.
- YAMS (Young Analysts Meeting of the Southeast), Furman University, July 2001.
- Colloquium Talk, Department of Mathematics, University of Tennessee Knoxville, Mar 2001.
- AMS Southeastern Section Meeting, University of Alabama at Birmingham, Nov 2000.
- Colloquium Talk, Department of Mathematics, Virginia Tech, Nov 2000.
- AMS Western Section Meeting, San Francisco State University, Oct 2000.
- SEAM XVI (Southeastern Analysis Meeting), University of Virginia at Charlottesville, Mar 2000.

## Teaching Experience

Courses taught:

- Precalculus, finite mathematics, calculus (all levels), linear algebra, ordinary and partial differential equations, real analysis (graduate and undergrad), advanced calculus, Fourier analysis, complex analysis, vector analysis, complex analysis (graduate course), functional analysis, measure theory (independent study).

Special seminars and courses organized:

- Math in Action, weekly undergraduate mathematics seminar, Fall 2006.
- Lectures in Invariant Subspace Problem, weekly faculty and graduate seminar, Fall 2006.
- Analysis Seminar, weekly faculty and graduate seminar, Spring 2004.
- Operator Theory Seminar, weekly seminar on operator theory, Fall 2003.
- Seminar in Analysis, special topic course in analysis, Summer 2000.

## University Services

- Interdisciplinary Committee (2008-2009)
- Colloquium Committee (2008-2009).
- Library Committee Chair (2006-2007).
- Curriculum Committee Chair (2005-2006).
- Graduate Faculty Committee (2003–present).
- Calculus Review Committee Chair (2004–2005).
- Hiring Committee for Mathematics (2003–2004).
- Major advisor (2003–present).