

## Michael V. Anshelevich

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### JOB HISTORY AND EDUCATION:

- TEXAS A&M UNIVERSITY: **Assistant Professor**, Fall 2005–current.
- UNIVERSITY OF CALIFORNIA, RIVERSIDE: **Assistant Professor**, 2002–2005.
- UNIVERSITY OF CALIFORNIA, BERKELEY: **NSF postdoctoral fellow**, 2000–2002.
- MATHEMATICAL SCIENCES RESEARCH INSTITUTE: **Postdoctoral fellow**, Spring 2001.
- UNIVERSITY OF CALIFORNIA, BERKELEY: **Ph.D. in Mathematics**, May 2000, under the supervision of Dan-Virgil Voiculescu; **M.A. in Statistics**, May 1997.
- CALIFORNIA INSTITUTE OF TECHNOLOGY: B.S. with honors (Mathematics), June 1994.

### GRANTS AND FELLOWSHIPS:

- National Science Foundation **grant DMS-0400860**, 2004–2007. Transferred to Texas A&M as DMS-0613195, 2005–2008.
- National Science Foundation postdoctoral fellowship, 2000–2004.
- Fannie and John Hertz Foundation Fellowship, 1994–1999.

### PUBLICATIONS:

1. *Free evolution on algebras with two states*, accepted for publication by the Journal für die reine und angewandte Mathematik, arXiv:0803.4280 [math.OA].
2. *Appell polynomials and their relatives III. Conditionally free theory*, arXiv:0803.4279 [math.OA].
3. *Appell polynomials and their relatives II. Boolean theory*, accepted for publication by the Indiana University Mathematics Journal, arXiv:0712.4185 [math.OA].
4. *Orthogonal polynomials with a resolvent-type generating function*, Trans. Amer. Math. Soc. **360** (2008) 4125–4143.
5. *Monic non-commutative orthogonal polynomials*, Proc. Amer. Math. Soc. **136** (2008) 2395–2405.
6. *Free Meixner states*, Commun. Math. Phys. **276** (2007) 863–899.
7. *Zimmermann type cancellation in the free Faà di Bruno algebra* (with Edward G. Effros and Mihai Popa), J. Funct. Anal. **237** (2006) 76–104.
8. *Linearization coefficients for orthogonal polynomials using stochastic processes*, Ann. Probab. **33** (2005) 114–136.
9.  *$q$ -Lévy processes*, J. Reine Angew. Math. **576** (2004) 181–207.
10. *Appell polynomials and their relatives*, Int. Math. Res. Not. **2004** n. 65, 3469–3531.
11. *Free martingale polynomials*, J. Funct. Anal. **201** (2003) 228–261.
12. *Itô formula for free stochastic integrals*, J. Funct. Anal. **188** (2002) 292–315.
13. *Free stochastic measures via noncrossing partitions II*, Pacific J. Math. **207** (2002) 13–30.
14. *Partition-dependent stochastic measures and  $q$ -deformed cumulants*, Doc. Math. **6** (2001) 343–384.
15. *Free stochastic measures via noncrossing partitions*, Adv. Math. **155** (2000) 154–179.
16. *The linearization of the central limit operator in free probability theory*, Probab. Theory Related Fields **115** (1999) 401–416.

**RESEARCH INTERESTS:**

- Functional analysis, operator algebras, free probability theory.
- Probability theory, stochastic processes.
- Combinatorics, orthogonal polynomials, umbral calculus.

**TEACHING EXPERIENCE:**

- **Graduate courses:** Partial Differential Equations, Real Analysis, Stochastic Processes.
- **Upper-division courses:** Topics in Applied Mathematics, Advanced Calculus, Probability, Complex Analysis, Linear Algebra, Numerical Analysis.
- **Lower-division courses:** First-Year Calculus (large class), Second-Year Calculus, Differential Equations, Calculus for Life and Social Sciences.

**SERVICE:**

- Organized the *Free Probability* seminar, 2005–current.
- Organized (with Ken Dykema) an educational Concentration Week on “Free Probability Theory” as part of the Workshop in Analysis and Probability, July 2007.
- Member of a Ph.D. committee (2008), member of a prelim and dissertation committees (2007), outside member of a dissertation committee (2006).
- At UC Riverside: Various committees; advisor to undergraduate math majors.
- Reviewer for *Mathematical Reviews* (22 reviews); referee (10 reports).
- Organized the *Mathematical Physics and Dynamical Systems* seminar (with Cristina Antonescu), UC Riverside (2004).

**SEMINAR TALKS:**

- 2008** Ben Gurion University of the Negev, Israel, *Colloquium*.
- 2007** University of Waterloo, Canada, *Analysis Seminar*.
- 2005** Georgia Institute of Technology, *Colloquium*.  
 University of Central Florida, *Colloquium*.  
 University of Texas at Austin, *Colloquium*.  
 Texas A&M University, *Colloquium*.  
 Oklahoma State University, *Colloquium*.  
 University of Houston, *Colloquium*.  
 Lehigh University, *Colloquium* and *Teaching Presentation*.
- 2004** California Institute of Technology, *Analysis seminar*.  
 Queen’s University, Canada, *Seminar on Functional Analysis and Random Matrices*.  
 University of Cincinnati, *Probability Seminar*.  
 Pennsylvania State University, *Geometric Functional Analysis Seminar*.  
 University of Pennsylvania, *Combinatorics Seminar*.  
 University of Connecticut, *Analysis and Probability Seminar*.
- 2003** University of California, Los Angeles, *Functional Analysis Seminar*.  
 Texas A&M University, *Linear Analysis and Algebra and Combinatorics Seminar*.  
 University of Illinois, Urbana-Champaign, *Analysis Seminar*.  
 University of California, San Diego, *Probability Seminar*.  
 Massachusetts Institute of Technology, *Combinatorics Seminar*.  
 University of Pennsylvania, *Analysis Seminar*.  
 Boston University, *Probability Seminar*.
- 2002** University of California, Berkeley, *Probabilistic Operator Algebras Seminar*.

University of California, Riverside, *Colloquium*.

**2001** University of California, Davis, *Analysis / Mathematical Physics Seminar*.

**1999** Goethe-Universität, Germany, *Mathematical Physics Seminar*.

Various talks in various seminars, UC Berkeley (1995–2002), UC Riverside (2002–2005), Texas A&M (2005–current).

### INVITED CONFERENCE TALKS

- 2008** – *Workshop on Non-commutative Harmonic Analysis with Applications to Probability*, Banach center, Będlewo, Poland, August.
- *Foundations of Computational Mathematics, Workshop on Special Functions and Orthogonal Polynomials*, City University of Hong Kong, China, June.
- *AMS Special Session on  $C^*$ -algebras, subfactors and free probability*, Claremont McKenna College, May.
- *Free Probability, Extensions, and Applications*, Banff International Research Station, Canada, January.
- 2007** – *Workshop on Noncommutative Dynamics and Applications*, Fields Institute, Canada, July.
- *Free Probability and Large  $N$  Limit*, UC Berkeley, CA, March.
- 2006** – *CMS special session on Probabilistic Methods in Analysis and Algebra*, University of Toronto, Canada, December.
- *AMS special session on Noncommutative Dynamical Systems*, University of Utah, October.
- *Workshop of stochastic eigen-analysis and its applications*, MIT, July.
- 2005** – *Free Probability Theory*, Oberwolfach, Germany, March.
- 2004** – *Free Probability Theory*, Banff International Research Station, Canada, October.
- *Workshop in Linear Analysis and Probability*, Texas A&M University, August.
- 2003** – *Extended Probabilistic Operator Algebra Seminar*, UC Berkeley, CA, August.
- *Quantum Probability and Infinite Dimensional Analysis*, Greifswald, Germany, June.
- *AMS special session on Special Functions and  $q$ -Series*, Baltimore, January.
- 2002** – *Workshop on Entropy in Operator Algebras*, IPAM, Los Angeles, July.
- *AMS conference on Advances in Quantum Dynamics*, Mount Holyoke College, June.
- *AMS special session on Stochastic Processes and Functional Analysis (in honor of M. M. Rao)*, San Diego, January.
- 2001** – *CMS symposium on Free Probability*, York University, Canada.
- *Workshop on Free Probability and Random Matrices*, University of Toronto, Canada.
- *Free Probability and Non-commutative Banach Spaces*, MSRI, Berkeley.
- 2000** – *AMS special session on Operator Algebras*, San Francisco SU.
- *AMS special session on Subfactors and Free Probability Theory*, UC Santa Barbara.
- 1999** – *Free Probability and Operator Spaces*, IHP-CEB, Paris, France.
- 1998** – *West Coast Operator Algebra Seminar*, CSU San Bernardino.
- *Free Probability and Applications*, CIRM, Lumini, France.

### LANGUAGES:

- Speak: English, Russian, French; understand: Spanish.