

# Assane Lo

Department of Mathematics  
The University of Arizona  
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- EDUCATION**
- ◇ **University of Arizona**, Tucson, AZ  
Ph.D. in Mathematics, (expected May 2007)
  - ◇ **University of Dakar**, Senegal  
Bachelor of Science in mathematics with minor in physics
- RESEARCH ACTIVITY**
- ◇ Current research in the area of Mathematical Physics and Geometric Analysis. In particular PDE methods in Statistical Mechanics, Euclidean Field Theory and Riemannian Geometry
  - ◇ Publications:
    - *Witten Laplacian Methods for the Decay of Correlations (Preprint) Arxiv math-ph/0611002*
    - *Towards a Direct Method for the Analyticity of the Pressure for certain Classical Unbounded Spin Systems (Preprint) Arxiv math-ph/0611004*
- SKILLS**
- ◇ Computing
    - Matlab, HTML, C and Java-Programming.
  - ◇ Languages
    - Native speaker of French and Wolof Fluent in English Proficient in Arabic
- RELEVANT PROFESSIONAL EXPERIENCE**
- ◇ **Graduate Teaching Associate-University of Arizona** (Spring 2005-Present)
  - ◇ **Graduate Teaching Assistant-University of Arizona** (Fall 2002-Spring 2005 )
  - ◇ **Member of the teaching team-Pathways program-University of Arizona** (Summer 2004)
    - ◇ **Primary instructor for :** Vector Calculus (Math 223, Fall 06), Calculus II (Math 129, Spring 06 and Fall 05), College Algebra (Math 110, Summer 05), Calculus I (Math 124, Spring 05), Element of Calculus ( Math 113, Fall 04), College Algebra (Math 110, Summer 04), Element of Calculus (Math 113, Spring 04), College Algebra (Math 110, Fall 03), College Algebra (Math 110, Summer 03), College Algebra (Math 110, Spring 03), College Algebra (Math 110, Fall 02)
    - ◇ **Primary teaching responsibilities include preparing and presenting all course lectures, writing course exams, and assigning students grades**
    - ◇ **Super TA for Introduction to mathematical proof (Math 323, Fall 04 and Spring 04):** run weekly review sessions
    - ◇ **Super TA for the core graduate real analysis course (Math 523A-B, Spring 06 and Fall 05):** Lead weekly recitation sessions
    - ◇ **Real analysis qualifying exam coach (Math 523A-B, Summer 06):** Lead practice problem sessions for the real analysis graduate qualifying examination

# Assane Lo

◇ Undergraduate research mentor for Mathematical modeling (Math 485, Spring 06) with Dr. J. Lega

HONORS Government of Senegal's Scholarship-University of Dakar (1994-1998)  
Government of Senegal's Scholarship-Ecole Normal Supérieur, Dakar (1999-2000)

SELECTED TALKS *Decay of correlations in two-dimensional plane rotors*  
Mathematical Physics Seminar, Univ.of.Arizona, Spring 04  
*Correlations in Kac-Like Models in the Convex Case* Graduate Student Colloquium, Univ.of.Arizona, Fall 04  
*Decay of correlations and Witten Laplacians Part I and II*  
Mathematical Physics Seminar, Univ.of.Arizona, Fall 2005  
*Witten Laplacian Methods in Statistical Mechanics Part I*  
Analysis and its applications seminar, Univ.of.Arizona, Fall 2006  
*Witten Laplacian Methods in Statistical Mechanics Part II*  
Mathematical Physics Seminar, Univ.of.Arizona, Fall 2006

SELECTED CONFERENCES AND WORKSHOPS *Yamabe Memorial Symposium*  
University of Minnesota, September 18, 2004  
American Mathematical Society  
MEMBERSHIPS Mathematical Association of America  
AND OFFICES