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## Education

- **University of Arizona**—Tucson, AZ  
*Ph.D in Mathematics (2007)*
  - Dissertation Title: Witten Laplacian Methods for Critical Phenomena
  - Thesis Advisor: Haru Pinson, Ph.D
- **University of Dakar**—Dakar, Senegal  
*Bachelor of Science (1999)*
  - Major: Mathematics
  - Minor: Physics

## Publications

- Witten Laplacian Methods for the Decay of Correlations. *Journal of Statistical Physics*. Accepted.
- On the Exponential Decay of the n-point Correlations and the Analyticity of the Pressure *J. Math. Phys.* 48 , 123506, 2007.

## Research Interests

- Analysis and PDE: Integral Geometry and Geometric Probability.
- Mathematical Physics: Critical Phenomena in Statistical Mechanics.

## Employment History

- September 2007-Now: Assistant Professor- KFUPM, Dhahran (Saudi Arabia).
- Spring 2005-Spring 2007: Graduate Teaching Associate-University of Arizona, Tucson USA.
- Fall 2002-Spring 2005: Graduate Teaching Assistant-University of Arizona, Tucson USA.

## Teaching Experience

- **KFUPM**: Graduate Real analysis, Calculus III.
- **University of Arizona primary instructor**: Vector Calculus, Calculus II, Calculus I, Element of Calculus, College Algebra.
- **Super TA-University of Arizona**: Graduate and Undergraduate real analysis.
- **Undergraduate research mentor**-University of Arizona.

## Honors

- Government of Senegal-National Merit Scholarship-Univ.of.Dakar (1994-1999).
- Government of Senegal-National Merit Scholarship-ENS, Dakar (1999-2000).

## Selected Talks

- *Decay of correlations in two-dimensional plane rotors*  
Mathematical Physics Seminar, University of Arizona, Spring 2004
- *Correlations in Kac-Like Models in the Convex Case.* Graduate Student Colloquium, University of Arizona, Fall 2004
- *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

- *Midwest Geometry Conference*  
University of Iowa, May 18-20, 2007
- *AMS Western Sectional Meeting*  
University of Arizona, April 21-22, 2007
- *Joint AMS/MAA Mathematics Meeting*  
New Orleans, January 5-8, 2007
- *Yamabe Memorial Symposium*  
University of Minnesota, September 18, 2004

## Memberships

- American Mathematical Society (AMS)
- Mathematical Association of America (MAA)