

# KFUPM

## Mathematical Sciences Department

### Curriculum Vitae



**Dr. Boubaker Smii**

## Contents

- 1. Personal Information**
- 2. Background:** Education, Awards and Scholarships
- 3. Teaching:** Teaching Experience, Courses Taught
- 4. Research Work:** Journal Papers, Proceedings, Submitted Work, Conference presentations, Funded Projects, Conference Attendance.
- 5. Visits/ Seminars** Department Seminars, Outside Department, Visits.
- 6. Committees**
- 7. Language**
- 8. Hobby**

## 1. Personal Information

**Name:** Boubaker Smii

**Birth date & place:** May, 23 1977, Kasserine (Tunisia)

**Marital Status:** Married with one child

**Address:** King Fahd University of Petroleum and Minerals / Department of Mathematics and Statistics, P. O Box 82/Dhahran 31261 / Saudi Arabia.

**Phone #:** +966 3860 7763 (W). +966 3860 6758 (H), **Fax #:** +966 3860 2340.

**E-mail:** [boubaker@kfupm.edu.sa](mailto:boubaker@kfupm.edu.sa)

**Function:** Assistant Professor

**Major Field:** Stochastic Analysis

**Area of research interest:** Applications of the Graphs to SPDE's driven by Levy noise, Graph Theory, Stochastic partial differential equation, Mathematical Physics

## 2. Background

### 2.1. Education

University	Year	Degree Obtained
Bonn University (Germany)	2006 – 2007	Ph. D. In Math
Tunis ElManar University (Tunisia)	2002 -2003	M Sc. In Math
University of Bizerte (Tunisia)	2001 – 2002	D.E.S. (B. Sc) In Math.

### 2.2. Scholarships and Honors

**2004-2007:** Scholarship from the German Academic Exchange Service (DAAD).

**2009-2010:** Scholarship from the German Academic Exchange Service (DAAD).

**2006-2007:** Member of the Excellence Cluster, University of Bonn, Germany.

**2004-2006:** Member of the Bonn International graduate student-BIGS-Germany.

## 3. Teaching

### 3.1. Teaching Experience

University	Period of Service	Position
KFUPM, Dhahran, KSA	2008 – now	Assistant Professor
Aljouf University, Skaka, KSA	2007 – 2008	Associate Professor
Bonn University, Germany	2006 – 2007	Assistant Professor
TunisElManar University , Tunisia	2003 – 2004	Teaching Assistant

### 3.4. Courses Taught

#### a. Undergraduate Courses

University	Year	Courses
University of Tunis	2003 – 2004	Analysis 1, Analysis 2, Algebra 1, Algebra 2
University of Bonn	2006 – 2007	Probability
University Aljouf	2007 – 2008	Calculus I, Calculus II, Graph Theory
KFUPM	2008 – 2009	Calculus II (MATH 102)
KFUPM	2009 – 2010	Elements of differential equations (Math202)

## 4. Research Work

### 4.1. Journal Papers and Proceedings

- ▶ How to determine the law of the solution to a SPDE driven by a Lévy space-time noise, **Journal of Mathematical Physics** v.48. Issue 03. 2007. 1-22 pp(with H. Gottschalk).
- ▶ The Feynman graph representation of convolution semigroups and its application to Lévy statistics. **Journal of Bernoulli Society** . 14 (2) 2008. 322-351 pp(with H. Gottschalk and H. Thaler).
- ▶ Convolution calculus on white noise spaces and Feynman graph representation of generalized renormalization flows. **Mathematical Analysis of Random Phenomena. Word Sci.** 2007, 101-111 pp (with H. Gottschalk and H. Ouerdiane).
- ▶ Integral representation of positive Operator. Stochastic Analysis and Probability, **Tunisia-Japan Symposium on culture and Science** 2005, 51-53 pp (with H. Ouerdiane).

### In Preparation:

- ▶ A Graphical representation of the grand canonical partition function.(Submitted, Review of Mathematical physics, 2010)
- ▶ A Graphical Solution of the generalized Burger equation driven by non Gaussian noise.(Submitted, Acta Mathematica, 2010)
- ▶ Application of generalized graphs to KPZ equations driven by Lévy noise. (Preprint, Dhahran 2010).

### 4.4. Conference Presentations

- 1) Boubaker S., *Applications of the graphs to generalized KPZ equation driven by Lévy noise*, 33<sup>rd</sup> International Conference on Stochastic Analysis and its Applications, 27-31 July 2009, Berlin. Germany.
- 2) Boubaker S., *Application of the Feynman graphs to Stochastic equations.* *International Symposium on Global Analysis and Probability, May 27-28, 2008* . Department of Mathematics, Qassim University, Saudi Arabia.
- 3) Boubaker S., *How to determine the law of the noise driving a SPDE.* *International Symposium on Mathematical Methods Applied to the Sciences* . San José, Costa Rica 19-22 February, 2008.
- 4) Boubaker S., *About the noise of SPDE*, International conference on Mathematical Analysis of Random Phenomena. September 12-17, 2005, Hammamet, Tunisia

### 4.6. Funded Projects

Title of the project	Period	Funded by	Role
----------------------	--------	-----------	------

Summability of the solution of the generalized KPZ equations	January 1st, 10 – Feb, 1st 10	KFUPM	PI
--	-------------------------------	-------	----

#### 4.7. Conference Attendance

Name	Place	Date
<i>33<sup>rd</sup> Conference on stochastic processes and their applications</i>	<i>Technische Universitat, Berlin. Germany.</i>	<i>july 27-31, 2009</i>
<i>International Symposium on Global Analysis and Probability,</i>	Qassim University, Saudi Arabia.	May 27-28, 2008
<i>International Symposium on Mathematical Methods Applied to the Sciences</i>	San José, Costa Rica	19-22 February, 2008.
International conference on Mathematical Analysis of Random Phenomena.	Hammamet, Tunisia	12-17, 2005
Tunisia-Japan Symposium on culture, Science and Technology	Sfax, Tunisia	May 23-29, 2004
International conference on Mathematical Analysis and Probability,	Hammamet, Tunisia.	October 20-25, 2003
Congres de la Societe Mathematique de Tunisie SMT	Tunisia	March 2003, 2004 and 2005

#### 4.8 Books

1) *Application of generalized graphs to stochastic equations driven by Lévy noise. In writing, Dhahran 2010*

#### 5. Visits / Seminars

5.1. \* Attending the weekly department Colloquium with one presentation, at least, each year.

#### 5.2. Seminars outside Department

Date	Title	Location
21 / 07/ 2009	Application of the graphs to burger equation driven by non Gaussian noise	University of Koblenz, Germany

#### 5.3. Visits

University	Location	Period of visit
Max Planck Institute	Bonn, Germany	Summers 2006 & 2007

University of Bielefeld	Germany	1 week , Summer 2006
Technische Universitat	Berlin, Germany	Two weeks, Summer 2009
University of Koblenz	Koblenz, Germany	Three months, Summer 2009

#### **5.4. Short courses & Workshops Attended :**

<b>Date</b>	<b>Activity</b>	<b>Place</b>
Summer 2006	Short course in Unix	Germany
Summer 2009	Lecture series in Financial Mathematics	Koblenz, Germany

#### **6. Committees**

2009-2010	Applied Math Group (Member) Combinatorics Group (Member) Awareness Committee (Member) Mathematics Olympiad Committee (Member)

#### **7. Languages**

Arabic – English – French and German

#### **8. Hobby**

♣Leisure: Travel, reading

♣Sports: walking, Football , Kung Fu, Taekwondo, swimming