

# Curriculum Vitae of Farida MOKCHAHA-HMISSI

**Full Name:** Farida Chedly MOKCHAHA-HMISSI

**Date / Place of Birth:** March 15, 1959 / Ras Jebel (Tunisia)

**Citizenship:** Tunisia

**Martial Status:** Married, one son (15 years).

**Function:** : Mathematics Professor

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**E-mail:** Farida.Hmissi@fst.rnu.tn

**Field of Specialization:** Potential Analysis; Stochastic Analysis.

**Languages:** Arabic: native; French: very good; English: good; German: good

## ACADEMIC QUALIFICATIONS

- 2005** : Habilitation: University of Tunis Elmanar.  
**Title:** Bochner Subordination, Additive Kernels and Ergodicity  
**Scientific Committee:** Juergen Bliedtner, Klaus Janssen (Germany)  
Med Salah Khalgui, Hedi Bensaad, Ezeddine Haouala (Tunisia).
- 1993** : These of Speciality: University of Tunis Elmanar (with high honors).  
Prepared at the University of Frankfurt .  
**Title:** An analytical and probabilistic study of Fatou-Naim-Doob theorem  
**Advisor:** Juergen Bliedtner (Frankfurt)
- 1985** : Master of Sciences in Mathematics: (with honors)  
University of Tunis Elmanar.  
**Title:** Markov processes with identical exit laws  
**Advisor:** Klaus Janssen (Duesseldorf).
- 1983** : Bachelor of Sciences in Mathematics: (with high honors)  
University of Tunis Elmanar.

## POSITIONS

- 2014-Now** : Professor at Al-Imam University, Riyadh (Saudi Arabia)  
**2012-2014** : Professor at the University of Tunis Carthage (Tunisia).  
**2007-2012** : Associate Professor at the University of Tunis Carthage (Tunisia).  
**1994-2007** : Assistant Professor at the university of Tunis Elmanar (Tunisia).  
**1992-1994** : Assistant at the university of Tunis Elmanar (Tunisia).  
**1990-1992** : Assistant (Lecturer) at the university of Frankfurt (Germany).  
**1985-1989** : Assistant at the university of Tunis Elmanar (Tunisia).

## UNIVERSITY TEACHING

### Bachelors Degree in Mathematics:

- Abstract algebra; Linear algebra; Calculus; Real Analysis (for L1 and L2).
- Differential Equations; Measures Theory; Probability (for L3).

### Master in Mathematics: Stochastic Analysis

- **Probability:** Conditional Expectation, Stopping Time, Martingale.

- **Markov Processes:** Transition Function, Brownian Motion, Lévy Process, Markov Chains.
- **Potential Theory:** Resolvent, Semigroup, Excessive Functions, Potentials, Integral Representation.

**Manuscripts** (In French)

- Probability for Bachelors (with Mohamed Hmissi).
- Probability for Master (with Mohamed Hmissi).

**INTERNATIONAL CONFERENCES**

- European Conference on Iteration Theory (ECIT): Batschuns (Austria) 1989, Gargnano (Italy) 2006, Nant (France) 2010.
- International Conference on Potential Analysis: Utrecht (Holland) 1991 et Kouti (Czech Republic) 1994, Hammamet (Tunisia) 1998 (Local Organizer), Bielefeld (Germany) 2003.
- The conferences of the Tunisian Mathematical Society: I often attended this annual conference since 1998.
- International Conference on Stochastic Analysis and Applications (ICSAA): Hammamet (Tunisia) 2007,2009,2011 and 2013.
- Connected International Meetings Professional Association: CIMPA School and Conference, Lévy Processes and Self-Similarity, Tunis and Hammamet 2013.

**AWARDS AND SCHOLARSHIPS**

- Invited from the Universities of Dusseldorf and Frankfurt (Germany), June 2007 and June 2013.
- Grand from the CNRS (National Center for Scientific Research), University of Every (France), June 1998.
- Grant from the DAAD (German Academic Exchange Service), University of Dusseldorf, June-July 1985, June-July 1986.
- Tunisian Government Scholarship for graduate studies in France, 1979.
- The first regional award for excellence diploma from high school in the governorate of Bizerte, 1978.

## RESEARCH EXPERIENCE

- Supervised Master Theses: 3 (achieved).
- Supervised Ph. D These: 1 (co-supervisor) +1 (in preparation).

## RESEARCH INTERESTS

- **Potential Analysis:** Fatou-Naim-Doob Theorem, Harmonic Functions, Riesz Potentials, Energy Formulas, Additive Kernels, Integral Representation, Exit Laws, Entrance Laws, Bochner Subordination, S-Subordination.
- **Stochastic Analysis:** Infinite Dimensional Dynamical Systems, Ergodicity, Random Dynamical Systems (RDS), Gradient-like RDS.

## PUBLICATIONS

1. Hmissi F.: Théorèmes aux limites cofines sur les H-cônes de fonctions. Revue Roumaine Math. pures appli. 39, 659-666 (1994)
2. Hmissi F.: Fonctions harmoniques pour les potentiels de Riesz sur la boule unité. Expo. Math. 12, 281-288 (1995)
3. Hmissi F., Hmissi M.: Additive Kernels and Integral Representation of Potentials. Potential Analysis 15, 123-132 (2001)
4. Hmissi F., Hmissi M.: Bochner Subordination and Ergodicity. Grazer Math. Berichte 346 , 211-221 (2004)
5. Hmissi F.: On Energy Formulas for Symmetric Semigroups. Ann. Math. Silesianae 19, 7-18 (2005)
6. Hmissi F., Maaouia W.: On Bochner Subordination for Contraction Semigroups with Sector Condition. Int. J. of Applied Math.18 No. 4, 429-445 (2005)
7. Hmissi F., Hmissi M.: On Dynamical Systems generated by Homogeneous Processes. Grazer Math. Berichte 350, 144-155 (2006)
8. Hmissi F., Hmissi M., Maaouia W.: On Bochner Subordination of Densities. Grazer Math. Berichte 351, 52-65 (2007)

9. Hmissi F., Hmissi M.: On subordination of resolvent and application to right processes. *Stochastics: An International Journal of Probability and Stochastic Processes* 351, Taylor and Francis, 52-65 (2009)
10. Hmissi A., Hmissi F., Hmissi M.: On gradient-like random dynamical systems. *ESAIM: Proceedings*, Vol. 36, 211-222 (2012)
11. M. Hmissi, F. Mokchaha, A. Hmissi: On potential kernels of random dynamical systems. To appear in *Opuscula Mathematica* (2015)
12. Hmissi A., Hmissi F.: On locally gradient-like random dynamical systems. In preparation.