

## CURRICULUM VITAE

### PERSONAL DATA

<i>Name</i>	Anis BEN GHORBAL
<i>Nationality</i>	Tunisian
<i>Position</i>	Associate Professor
<i>E-Mail</i>	<a href="mailto:assghorbal@imamu.edu.sa">assghorbal@imamu.edu.sa</a> // benghorbal@gmail.com
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### EDUCATION

<i>Year</i>	<i>Academic Degree</i>	<i>Institution</i>
January, 2001	Ph.D. of Sciences in Mathematics	Henri Poincaré University Nancy 1, France
1997	Master of Sciences in Mathematics	Louis Pasteur University Strasbourg1, France
1996	Bachelor of Sciences in Mathematics	Faculty of Sciences of Tunis, University of Tunis 2, Tunisia.

### WORK EXPERIENCE

<i>Period</i>	<i>Position</i>	<i>Address</i>
June 2022 up to now	Associate Professor	Department of Mathematics and Statistics, College of Sciences, Al-Imam Muhammad Ibn Saud Islamic University, KSA.
September 2006 - June 2022	Assistant Professor	Department of Mathematics and Statistics, College of Sciences, Al-Imam Muhammad Ibn Saud Islamic University, KSA.
September 2005 – September 2006	Assistant Professor	Department of Mathematics Francesco Brioschi, Politecnico di Milano, Italy
October 2002-September 2006	Postdoctoral fellowship	A grant from the European Commission: Research Training Networks, Quantum Probability with Applications to Physics, Information Theory and Biology, Contract HPRN-CT-2002-00279. (Rome, Milano, Genova – Italy, Wroclaw – Poland, Greifswald – Germany)

### RESEARCH INTERESTS

- Statistical stochastic independence and its application on the Central Limit Theorem.
- Quantum stochastic processes, in particular quantum stochastic processes with independent and stationary increments (quantum Lévy processes).
- Quantum stochastic calculus, in particular on the Boolean Fock space.
- Quantum Markov (dynamical) semigroups.
- Survival data analysis and their applications.
- Bayesian analysis; Change and Joint point; Longitudinal data, Bayesian analysis; Change and Joint point; Longitudinal data

## PUBLICATIONS

1. *Non-commutative notions of stochastic independence*, (with M. Schürmann) Published in *Mathematical Proceedings of the Cambridge Philosophical Society* **133**, pages 531-561, 2002.
2. *Quantum stochastic calculus on Boolean Fock space* (with M. Schürmann). Published in *Infinite Dimensional Analysis, Quantum Probability and Related Topics*, **Vol. 7**, No.4, pages 631-650, 2004.
3. *Monotone Independence and Comb Product of Graphs*, EMAU Greifswald Preprint- Reihe Mathematik Preprint 2003/37, 2003 (with L. Accardi and N. Obata). Published in *Infinite Dimensional Analysis, Quantum Probability and Related Topics*, **Vol. 7**, No.3 pages 419-435, 2004.
4. Quantum Lévy processes on the dual groups, EMAU Greifswald Preprint-Reihe Mathematik 2003/38, 2003 (with M. Schürmann). Published in *Mathematische Zeitschrift* **251**, pages 147-165, 2005.
5. *A constructive Boolean central limit theorem*, C (with V. Crismale and Y.G. Lu), Published in *Bollettino dell Unione Matematica Italiana. Sezione B*, **Vol. 10**, N° 3, pages. 593-604, 2007.
6. *Boson cocycle as the second quantization of the Boolean cocycle* (with F. Fagnola), Published in Proceedings of 26<sup>th</sup> Conference of Quantum Probability and Infinite Analysis, Levico, Italy 20-26 February, 2005, QP-PQ: Quantum Probability and White Noise Analysis - Vol. 20, pages 134-144, 2007. S. Hachicha and H. Ouerdiane), Published in *Communications on Stochastic Analysis*, **Vol. 2**, No. 2, pages 177-192, August 2008.
7. *Singleton Conditions and Quantum De Finetti's Theorem*, (with L. Accardi, V. Crismale and Y.G. Lu), Published in *Infinite Dimensional Analysis, Quantum Probability and Related Topics*, **Vol. 11**, No.4, pages 639-660, 2008.
8. *Projective independence arising from interacting Fock spaces and related central limit theorems*, (with V. Crismale), Published in *Probability and Mathematical Statistics*, Vol. 29 Fasc. 2, pages 400-419, 2009.
9. *Using WinBUGS to Cox Model with Changing from the Baseline Hazard Function*, (with A. Mostafa), *Applied Mathematical Sciences*, Vol. 5, no. 45, 2217 – 2240, 2011.
10. *Bayesian and non-Bayesian analysis for random change point problem using standard computer packages*, (with A. Mostafa), *International Journal of Mathematical Archive* 2 (10), pages 1963-1979, 2011.
11. *Principle of Statistics for Economics, Accounting and Management*, (with I. Elbatal, E. ABDELSAMAD, N. ALOTAIBI), 2018.
12. *Quantitative Structure–Activity Relationship Evaluation of MDA-MB-231 Cell Anti-Proliferative Leads*, (with Ajaykumar Gandhi, Vijay Masand, Magdi E. A. Zaki, Sami A. Al-Hussain, Archana Chapolikar), *Molecules*, Vol. 26, No. 4795, 2021.
13. *QSAR analysis of sodium glucose co–transporter 2 (SGLT2) inhibitors for anti-hyperglycaemic lead development*, (with A. Gandhi, V. Masand, M.E.A. Zaki, S.A. Al-Hussain, A. Chapolikar), *SAR and QSAR in Environmental Research*, VOL. 32, NO. 9, pages 731–744, 2021.
14. *Identification of concealed structural alerts using QSTR modeling for Pseudokirchneriella subcapitata*, (with Vijay H. Masand, Magdi E.A. Zaki, Sami A. Al-Hussain, Siddhartha Akasapu, Israa Lewaa, Arabinda Ghosh, Rahul D. Jawarkar), *Aquatic Toxicology*, Vol. 239, 2021.
15. *A generalization of the linear exponential model: properties and real data modeling*, *Advances and Applications in Statistics*, Volume 75, Pages 135-155, 2022.
16. *On Properties of Length Biased Exponential Model*, *Mathematical Problems in Engineering*, Volume 2022, Article ID 9779767, 2022.
17. *Alpha Power Moment Exponential Model with Applications to Biomedical Science*, (with M. Shrahili,1 Amal S. Hassan, Ehab M. Almetwally, Ibrahim Elbatal), *Scientific Programming: Alpha*

Power Moment Exponential Model with Applications to Biomedical Science, Vol. 2022, Article ID 6897405, 2022.

18. *Blow-up solutions for a 4-dimensional semilinear elliptic system of Liouville type in some general case*, S. Baraket, A. Ben Ghorbal, R. Chetouane and W. Mtaouaa, Submitted, 2023.
19. *Weighted Kirchhoff problem of N-Schrodinger type involving logarithmic weight under double exponential nonlinear growth*, S. Baraket, A. Ben Ghorbal and R. Jaidane, Submitted, 2023.
20. *Blow up solutions for 2-dimensional semilinear elliptic of Liouville type with nonlinear gradient term*, S. Baraket, A. Ben Ghorbal and F. Mtiri, Submitted, 2023.