

Curriculum Vitae: Dr Borhen Halouani

Personal Details:

Address: King Saud University
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Citizenship: Tunisian

Born: Jan.15, 1979, Akouda, Tunisia.

Family Situation: Married (One child: Salem).

Education and Qualification:

2002-2006 PhD in Mathematics at University of Littoral (ULCO), France.
Local Peak Sets in Weakly Pseudoconvex Boundaries in \mathbb{C}^n .
Achieved with Honors-distinguish on June, 30th, 2006.
Advisor: Prof. Joachim Michel, Jury: Prof. Joachim von Below ,
Prof. Yves Dupain, Prof. Bert Fisher, Prof. Emmanuel Mazzilli

2001-2002 Master's: DEA in Pure Mathematics at University of Lille I, France.
Memoir: *Complex, Almost complex, Cauchy-Riemann Manifolds & Integrability and Embedding Problems.*
Advisor: Prof. Joachim Michel
Jury: Prof. Pierre Débes, Prof. Pascal Honvault.

1997-2001 Undergraduate studies:
2000-2001: 'Maîtrise' in Mathematics at Faculty of Sciences of Monastir, Tunisia.
1999-2000: 'Licence' in Mathematics at Faculty of Sciences of Monastir, Tunisia.
1997-1999: 'DEUG MP' in Mathematics at Faculty of Sciences of Monastir, Tunisia.

June 1997 Baccalaureate of Mathematics, Akouda, Tunisia.

Teaching Experience:

2007-Up to now Assistant Professor at King Saud University, KSA.
I taught Integral Calculus I & II, Discrete Mathematics, General Mathematics
Biostatics, Probability, Differential Equations, Linear Algebra,
Group Theory, Complex Analysis, Measure Theory.

2006-2007 Teaching Assistant at School of Engineering of Monastir, Tunisia.
I taught Probability and Statistics, Complex Analysis.

2003-2006 Teaching at University of Littoral (ULCO), Calais, France.
I taught Real Analysis, Linear Algebra, Probability and Statistics.

2000-2001 CAPES (National Mathematics Teaching Competition), Tunisia.

My research Interests:

- One and Several Complex Variables.
- Harmonic Analysis.
- q -Special Functions.
- Wavelets - Fractals.

Publications:

Articles:

- *Meixner d -Orthogonal Polynomials Arising from $\mathfrak{su}(1,1)$* , with Fethi Bouzaffour submitted to J. Nonlinear Mathematical Physics (Dec 2017).
- *Criteria of Pointwise and Uniform directional Lipschitz Regularities on Tensor Products of Schauder Functions*, with Mourad Ben Slimane, Moez Ben Abid and Ines Ben Omrane, published at J. Math. Analysis and Applications. (Dec 2017).
- *On Wavelet and Leaders Wavelet Based Large Deviation Multifractal Formalisms for Non-Uniform Hölder Functions*, with Mourad Ben Slimane, Moez Ben Abid and Ines Ben Omrane, published at J. Fourier. Anal. Appli (Nov 2017).
- *Mixed Wavelet Leaders Multifractal Formalism in a Product of Critical Besov Spaces*, with Mourad Ben Slimane, Moez Ben Abid and Ines Ben Omrane, published at Mediterranean Journal of Mathematics (July 2017), No 176.
- *On the Asymptotic Expansion of the q -Dilogarithm*, with Fethi Bouzaffour published at Advances in Difference Equations, 2016.
- *Multifractal Formalism of Oscillating Singularities for Random Wavelet Series* with Mourad Ben Slimane, published at Fractals, Vol.23 No 2, 2015.
- *Local Peak Sets in Weakly Pseudoconvex Boundaries in \mathbb{C}^n* . Published at Annales de la faculté des sciences de Toulouse. Vol XVIII, No 3, 2009.
- *Ensembles localement pics dans les bords faiblement pseudoconvexes de \mathbb{C}^n* . Published at C.R. Acad. Sci. Paris, Volume 344, issue 5, 2007.

Thesis:

- *Local Peak Sets in Weakly Pseudoconvex Bondaries in \mathbb{C}^n* , (79 pages), 2006.

Master's Memoir:

- *Complex, Almost complex, Cauchy-Riemann Manifolds & Integrability and Embedding Problems.*(40 pages), 2002.

Books:

- *Complex Analysis for One Complex Variable*. Published at School of Engineering of Monastir, 2007.

Professional Development:

- Coordinator for Math 111 (2015-2017)
- Coordinator of Community Services at the department of Mathematics, KSU. (2011-2017)
- Coordinator of Learning Management System (LMS) at the department of Mathematics, KSU.
- Member of Committee for Analysis and Topology & Geometry at the department, KSU .
- Refereeing some research papers.
- LMS project: Math 111 (done in 2016) and Math 107 (done in 2017)
- LMS project: Differential & Integral Math 200 (done in 2015).
- LMS project: General Mathematics Math 104 (done in 2014).
- LMS project: Discrete Mathematics Math 151 (done in 2013).
- Math499 Research project: Interpolation of Polynomials (Student: Talel Alasmari), KSU.
- Math499 Research project: Orthogonal Polynomials (Student: Anwar Hamdi), KSU.

Seminars and conferences:

- Dec. 11, 2007 King Saud University, KSA.
- Mar. 19, 2007 Society of Mathematics of Tunisia (SMT).
- Dec. 4, 2006 Faculty of Sciences of Monastir, Tunisia.
- Jun. 5, 2006 Laboratory of Pure and Applied Mathematics, Calais, France.
- Mar. 24, 2006 Laboratory Paul Painlevé, Geometric Analysis, Lille, France.

Miscellany:

Computer skills: I program in the following languages: Latex, Scientific Workplace, Mathematica, C++.

Languages: I am fluent in English, French and Arabic(mother tongue).

References are available on request:

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