

CURRICULUM VITAE

PERSONAL DATA

Name	Ines Mahmoud BEN OMRANE
Nationality	Tunisian
Position	Assistant Professor
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EDUCATION

Year	Academic Degree	Institution
2010	Ph.D. Mathematics	University of Tunis, Tunisia
2005	Master degree in Engineering Mathematics	Ecole Polytechnique de Tunisie
2002	Bachelor of Sciences in Mathematics	University of Tunis, Tunisia

WORK EXPERIENCE

Period	Position	Address
12/09/2011 – Present	Assistant Professor	Imam University, College of Science, Department of Mathematics and Statistics, Riyadh, KSA.
2010-2011	Assistant Professor	Carthage University, Tunisia
2006-2010	Contractual assistant	Tunis University, Tunisia

RESEARCH INTERESTS

PDEs, Singularities, Regularity criterion, Geometry and Nonlinear Analysis.

PUBLICATIONS

1. **I. Ben Omrane:** Multivariate multifractal formalism for simultaneous pointwise $(T^{p_i}_{u_i})_i$ regularities Applicable Analysis 2022, VOL.101,NO.16,5824–5849 Published: November (2022) (co-authors: M. Ben Abid, M. Ben Slimane and B. Halouani), (ISI)
2. **I. Ben Omrane:** MULTIVARIATE WAVELET LEADERS RENYI DIMENSION AND MULTIFRACTAL FORMALISM IN MIXED BESOV, International Journal of Wavelets, Multiresolution and Information Processing Vol. 20, No. 2 (2022) 2150047, 1--32 Published: (2022) (co-authors: M. Ben Abid, M. Ben Slimane and M. Turkawi) (ISI)
3. **I. Ben Omrane:** Multifractal Analysis of Rectangular Pointwise Regularity with Hyperbolic Wavelet Bases (with M. Ben Abid, I. Ben Omrane and M. Turkawi), Journal of Fourier Analysis and Applications 27:90 : November (2021) (co-authors: M. Ben Abid, I. Ben Omrane and M. Turkawi) (ISI)
4. **I. Ben Omrane:** A double-logarithmically improved regularity criterion of weak solutions for the 3D MHD equations, Zeitschrift für angewandte Mathematik und Physik, vol 72, No: 114 (2021) (co-authors: S. Gala and M. A Ragusa) (ISI)
5. **I. Ben Omrane:** Dimension prints for continuous functions on the unit square , Acta Mathematica Hungarica, Volume: 161 Issue: 1 Pages: 78-99 Published: September (2021) (co-authors: M. Ben Abid, M. Ben Slimane and M. Turkawi) (ISI)
6. **I. Ben Omrane:** Pointwise Rectangular Lipschitz Regularities for Fractional Brownian Sheets and Some Sierpinski Selfsimilar Functions ,Mathematics , Article 8, 1179 Published: 17 July (2020) (co-authors: M. Ben Abid, M. Ben Slimane and M. Turkawi) (ISI)
7. **I. Ben Omrane:** A regularity criterion to the 3D Boussinesq equations, Siberian Electronic Mathematical Reports, Vol 16(2020) 1795-1804 (co-authors A.M. Alghamdi, S. Gala, M.A.Ragusa) (ISI)
8. **I. Ben Omrane:** On the Baire Generic Validity on the t- Multifractal Formalism in Besov and Sobolev Spaces, Journal of Function Spaces Article 4358261 Published: August (2019) (co-authors: M. Ben Slimane , M. Ben Abid and B. Halouani) (ISI)
9. **I. Ben Omrane:** Directional Multifractal Analysis in the L^p Setting, Journal of Function Spaces Journal of Function Spaces, Article 1691903 Published: July (2019) (co-authors: M. Ben Slimane , M. Ben Abid, B. Halouani and F. Alshormani) (ISI)
10. **I. Ben Omrane:** Directional Thermodynamic Formalism, Symmetry-Basel , Volume: 11 Issue: 6 Article: 825 Pages: 1-32 Published: 21 June (2019) (ISI) (co-authors: M. Ben Slimane , M. Ben Abid and B. Halouani) (ISI)

11. **I. Ben Omrane:** Logarithmically Improved Blow-up Criterion for Smooth Solutions to the Leray- α -Magnetohydrodynamic Equations, *Archivum Mathematicum*, Vol. 55(2019), No. 1, 55-68, (co-authors: S. Gala, J-M. Kim and M. A Ragusa) **(ISI)**
12. **I. Ben Omrane:** On Wavelet and Leader Wavelet Based Large Deviation Multifractal Formalisms for Non-uniform Holder, *Journal of Fourier Analysis and Applications*, Volume: 25 Issue: 2 Pages: 506-522 Published: APR (2019) (co-authors: M. Ben Slimane , M. Ben Abid and B. Halouani) **(ISI)**
13. **I. Ben Omrane:** Criteria of pointwise and uniform directional Lipschitz regularities on tensor products of Schauder functions, *J. Math. Anal. Appl.* 460 (2018) 496-515, (co-authors: M. Ben Slimane ,M. Ben Abid and B. Halouani) **(ISI)**
14. **I. Ben Omrane:** Mixed Wavelet Leaders Multifractal Formalism in a Product of Critical Besov , *Mediterranean Journal of Mathematics*, Volume 14 (2017), (co-authors: M. Ben Abid, M. Ben Slimane and B. Halouani) **(ISI)**
15. **I. Ben Omrane:** Mixed wavelet leaders multifractal formalism for Baire generic functions in a product of intersections of Holder spaces with non continuous Besov spaces, *Mediterranean Journal of Mathematics*, Volume 13 (2016), 5093–5118 (co-authors: M. Ben Abid and M. Ben Slimane) **(ISI)**
16. **I. Ben Omrane:** A posteriori analysis of the spectral element discretization of heat equation. *An. St. Univ. Ovidius Constanta* Vol. 22(3), 2014, 13-35 (co-authors: M. Abdelwahed and N. Chorfi) **(ISI)**
17. **I. Ben Omrane:** Singular limits for 2-dimensional elliptic problem with exponentially dominated nonlinearity and singular data, *Communications in Contemporary Mathematics*, Volume: 13 Issue: 4 (2011), 697-725 (co-authors: S. Baraket, T. Ouni, and N. Trabelsi) **(ISI)**
18. **I. Ben Omrane:** Singular limits for 2-dimensional elliptic problems involving exponential nonlinearity with nonlinear gradient term, *Nonlinear Differential Equations and Applications*, Volume: 18 Issue: 1 (2011), 59-78 (co-authors: S. Baraket and T. Ouni) **(ISI)**
19. **I. Ben Omrane:** The Wentz problem associated to the modified Helmholtz operator on weighted Sobolev spaces, *Adv. Nonlinear Studies*, Volume: 10 Issue: 4 (2010), 771-788 (co-authors: M. Jleli, and B. Samet) **(ISI)**
20. **I. Ben Omrane:** Etude de quelques équations aux dérivées partielles non linéaires issues de la géométrie et de la physique, *Reports of Faculty of Sciences of Tunis* (2010).
21. **I. Ben Omrane :** A generalized four dimensional Emden-Fowler equation with exponential nonlinearity, *Communications in Applied Analysis*, Volume: 13 (2009), 431-446. (co-author:M. Dammak)