

## CURRICULUM VITAE

### PERSONAL DATA

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### EDUCATION

<b>Year</b>	<b>Academic Degree</b>	<b>Institution</b>
1998	Habilitation Universitaire	Faculty of Sciences of Tunis
1994	PhD Doctorat	Ecole Normale Superieure de Paris, France
1991	Master	University of Paris-Sud Orsay, France
1990	Maitrise of Mathematics	Faculty of Sciences of Tunis

### WORK EXPERIENCE

<b>Period</b>	<b>Position</b>	<b>Address</b>
2022-	Professor	Imam Mohammad Ibn Saud Islamic University
2013-2022	Professor	Faculty of Sciences of Tunis
2008-2013	Professor	King Saud University
1999-2008	Professor	Faculty of Sciences of Tunis

### RESEARCH INTERESTS

Partial Differential Equations, Nonlinear Analysis and Analysis

### PUBLICATIONS

1. S. Baraket, : Quelques résultats sur des équations aux dérivées partielles provenant de problèmes géométriques. **Nouvelle Thèse ; Ecole Normale Supérieure de Cachan**, (1994).
2. S. Baraket and D. Ye, Minimizing harmonic mappings from a surface perforated with small holes into a Riemannian manifold. **Manuscripta Mathematica**, **Vol.77**, 191-199, (1992).
3. S. Baraket et L. Lassoued, Bifurcation analysis of solutions of Landau lifscitz problem with external fields. **Houston Journal of Mathematics**, **Vol.23**, N4,669-683, (1997).
4. S. Baraket, : Points critiques du système de Ginzburg-Landau sur une surface Riemannienne. **Comptes Rendus de L'Académie des Sciences de Paris**, t. 319 Série I, p. 949-952, (1994).
5. S. Baraket, Critical points of the Ginzburg-Landau system on a Riemannian surface. **Asymptotic Analysis**, **Vol. 13**, 277-317, (1996).
6. S. Baraket, Estimation of the best constant involving the L1 norm in the Wente's inequality. **Annal. Fac. Scien. de Toulouse**, **Vol.V**, N 3, 373- 386, (1996).
7. S. Baraket and F. Pacard, Construction of singular limits for a semilinear elliptic equation in dimension 2. **Calc. Var. Partial Differential Equations**, **6**, 1-38, (1998).
8. S. Baraket, Construction de limites singulières pour des problèmes elliptiques non linéaires en dimension deux. **Comptes Rendues de l'académie des Sciences de Paris**, t. 323 Série I, p. 609-614, (1996).
9. S. Baraket, Construction of singular limits for a strongly perturbed two-dimensional problem with exponential nonlinearity. **Bulletin des Sciences Mathématiques**, **Vol. 123**, 255-284, (1999).
10. S. Baraket and D. Ye, Singular limit solutions for two-dimensional elliptic problems with exponentially dominated nonlinearity. **Chinese Ann. Math. Ser. B**, **22**, 287 296, (2001).
11. S. Baraket, The Wente problem in higher dimensions. **Comm. In Partial Diferential Equations**, **26**, 1497-1508, (2001).
12. S. Baraket and S. Rebhi, Construction of dipole type singular solutions for a biharmonic equation with critical Sobolev exponent. **Adv. Nonlinear Stud.** **2**, 459-476, (2002).
13. S. Baraket and L. B. Chaabane, The Wente inequality on weighted Sobolev spaces. **Houston journal of Mathematics**, **Vol. 29**, No. 4, 1065-1075, (2003).

14. S. Baraket and I. Bazarbacha, The Wentz problem for a singular elliptic equation. **J. Math. Anal. Appl.**; **Vol. 284, 711-723**, (2003).
15. S. Baraket and M. Dammak, Estimation of the best constant involving the L2 norm of the higher order Wentz problem. **Abstr. Appl. Anal.** **599-606**, (2005).
16. S. Baraket, M. Dammak, M. Jleli and D. Ye, Integrability of detru and evolutionary Wentz's problem associated to heat operator. **Chinese Ann. of Math. Ser.B**, **28 (5) 527-532**, (2007).
17. S. Baraket, I. Abid, I. Bazarbacha and T. Ouni, Best constant involving the L1 norm of evolutionary Wentz's problem associated to wave operator. **J. Math. Anal. Appl.** **325, 866-878**, (2007).
18. S. Baraket, M. Dammak, T. Ouni and F. Pacard, Singular limits for a 4 dimensional semilinear elliptic problem with exponential nonlinearity. **Ann. I. H. Poincaré - AN** **24 875-895**, (2007).
19. S. Baraket, I. Bazarbacha and N. Trabelsi, Construction of singular limits for four-dimensional elliptic problems with exponentially dominated nonlinearity. **Bull. Sci. Math** **131 670-685**, (2007).
20. I. Abid and S. Baraket, Construction of singular solutions for elliptic problem of fourth order derivative with subcritical. **Differential and Integral Equations**, **vol. 21, N 7-8, 653-664**, (2008).
21. S. Baraket and T. Ouni, Integrability of detru and evolutionary Wentz's problem associated to reaction-diffusion operator. **Arab J. Math. Sc. Volume 15, Number 2, December, 1-11**, (2009).
22. S. Baraket, I. B. Omrane and T. Ouni, Singular limits for 2-dimensional elliptic problem involving exponential nonlinearity with nonlinear gradient term. **Non. Lin. Diff. Eq. App.**, **vol. 18, N 1 59-78**, (2011).
23. S. Baraket, I. B. Omrane , T. Ouni and N. Trabelsi, Singular limits solutions for 2-dimensional elliptic problem with exponentially dominated nonlinearity and singular data. **Communications in Contemporary Mathematics Vol. 13, No. 4, 697--725.24**, (2011).
24. S. Baraket, I. Abid, T. Ouni and N. Trabelsi, Singular limits for 2-dimensional elliptic problem with exponentially dominated nonlinearity with nonlinear gradient term. **Bound. Value Probl, DOI: 10.1186/1687-2770-10**, (2011).
25. S. Baraket, I. Abid and T. Ouni, Singular limits solution for 2-dimensional elliptic problems involving Exponential nonlinearities with nonlinear gradient terms and singular weights. **Annali di**

**Matematica Pura ed Applicanda**191:845–869, (2012).

26. S. Baraket, I. Bazarbacha, S. Kharrati and Taieb Ouni, Singular limits for  $2N$ -dimensional elliptic problem with exponentially dominated nonlinearity with a very general quadratic gradient term.

**Analele Stiintifice ale Universitatii Ovidius Constanta, Seria Matematica, Vol 21 (1), 19-50,** (2013).

27. S. Baraket and T. Ouni, Singular limits for  $2N$ -dimensional elliptic problems involving Exponential nonlinearity with subquadratic convection term. **Glasgow Mathematical Journal, Vol 55 (3), 537-557,** (2013).

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29. S. Baraket, M. Dammak and S. Kharrati, Singular limits solution for  $2N$ -dimensional elliptic problems involving Exponential dominated nonlinearity with subquadratic convection term. **AN. STIINT. UNIV. AL. I. CUZA IASI. MAT. (N.S.) Tomul LXII, 2016, f.1.**

30. S. Baraket, M. Khtaifi and T. Ouni, Singular limit solutions for 4-dimensional stationary Kuramoto-Sivashinsky equations with exponential nonlinearity, **Elect. Jour. Diff. Eq. , No. 187, pp. 1-26,** (2015).

32. S. Baraket, I. Bazarbacha and M. Trabelsi, Singular limiting solutions for 4-dimensional elliptic problem involving exponentially dominated nonlinearity with nonlinear terms. **Elect. Jour. Diff. Eq. , No. 289, pp. 1-19,** (2015).

33. T. Ouni, S. Baraket and M. Khtaifi, Singular limit solutions for 4-dimensional general stationary  $q$ -Kuramoto-Sivashinsky ( $q$ -KS) equations with exponential nonlinearity, **An. Stiint. Univ. "Ovidius" Constanta, Ser. Mat. 24 (2016), no. 3, 295–337.**

34 S. Baraket and I. Bazarbacha, Singular limiting solutions for 2 dimensional semilinear elliptic system of Liouville type with Dirichlet boundary conditions, **Complex Variables and Elliptic Equations 63(1), (2018) 37-67.**

35. S. Baraket and V. D. Rădulescu, Combined effects of concave-convex nonlinearities in a fourth-order problem with variable exponent, **Adv. Nonlinear Stud. 16, 409-419,** (2016).

36. S. Baraket and C. M. Bisci, Multiplicity results for elliptic Kirchhoff-type problems, **Adv. Nonlinear Anal. 6 (S1), 85-93,** (2016).

37. S. Baraket, S. Chebbi, N. Chorfi and V. D. Rădulescu, Non-autonomous Eigen value problems with variable  $(p_1, p_2)$ -growth, *Adv. Nonlinear Stud.* **17 (4)**, 781-792, (2017).
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51. S. Baraket, S. Mahdaoui, T. Ouni, On th Blowing up solutions of the 4-D general Q-Kuramoto-Sivansky equations with exponentially dominated nonlinearity and singular weight, **Opuscula Mathematica** (2023), 43 (1), pp.5-18.
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53. S. Baraket, R. Chetouane, R. Jaidane and W. Mtaouaa, Sign-changing solutions for a weighted Schrödinger-Kirchhoff equation with double exponential nonlinearities growth, **(To appear)**.
54. S. Baraket, A. B. Ghorbal, R. Chetouane and Wafa Mtaouaa, Blow-up solutions for a 4-dimensional semilinear elliptic system of Liouville type in some general case, **(to appear)**.
55. Sami Baraket, A. B. Ghorbal and R. Jaidane,Weighted Kirchhoff problem of N-Schrödinger type involving logarithmic weight under double exponential nonlinear growth Blow up solutions for 2-dimensional semilinear elliptic of liouville type with nonlinear gradient term, **(to appear)**.
56. S. Baraket and M. Bouguecha, Unconstrained minimization problems and a new symmetrization method for vector valued maps, **(to appear)**.
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