

# Curriculum Vitae

## Boumediene ABDELLAOUI

### 1 PERSONAL DATA

**Name :** Abdellaoui

**Givenname :** Boumediene

**Date and place of Birth :** 19/06/1975, Tlemcen-Algeria

**Nationality :** ALGERIAN

**Marital Status :** Married

**Personal Address :** No 11, Cité Bendimered, Sidi Chaker, CP 13000-Tlemcen, ALGERIA

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**Name and Address of Permanent Institute :** Département de Mathématiques, Université Abou Bekr Belkaid, Tlemcen CP 119 13000, Tlemcen ALGERIA

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### 2 ACADEMIC EDUCATION

- D.E.S. in Mathematics : University of Tlemcen, June 1993-1997, Qualification Très bien.
- Ph.D in Mathematics : Universidad Autonoma de Madrid June 1997-2003, Qualification Sobresaliente(CUM LAUDE)
- Habilitation à diriger les recherches : University Abubekr Belkaid-Tlemcen, Algeria, May 2008

### 3 SCIENTIFIC EMPLOYMENT AND ACADEMIC RESPONSIBILITIES

2003 - 2006 **Associate professor**, University Autonoma of Madrid, Spain.

2006 - 2008 **Associate professor**, University Aboubek Belkaid of Tlemcen, Algeria.

2009 - 2012 **Permanent professor**, University Aboubek Belkaid of Tlemcen, Algeria.

2013 - **Full Professor** of mathematical analysis, University Aboubek Belkaid of Tlemcen, Algeria.

### 4 PRIZES, AWARDS AND OTHER SCIENTIFIC MERITS

1) Member of the "Académie des Sciences et des Technologies d'Algérie" (ASTA) since Sept. 2015.

2) **Prize Maurice Audin of mathematics 2010**, delivered by the SMF (Société Mathématique de France) and SMAI (Société des Mathématiques Appliquées et Industrielles).

3) **Prize of the Shoman Foundation** for Young Arab researchers en mathematics, 2009.

4) I was a **junior associate member** at the ICTP of Trieste Italy from 2008 to 2013.

5) I am a **regular referee** for some mathematic journals as JFA, JDE, Nonlinear analysis TMA, JMAA, Electronic, CPAA, Boundary value problem, NoDea, DEA, Calc. Var. Partial Differential Equations, Trans. Amer. Math. Soc., Proc. Royal. Soc. Edinburgh, Adv. Nonlinear Stud, Adv. Nonlinear analysis,...

## 5 RECENT PUBLICATIONS :2016-2020

- 1) **B. Abdellaoui** and F. Mahmoudi : *An improved Hardy inequality for a nonlocal operator*. Discrete and continuous dynamical systems. Volume 36, Number 3, March 2016
- 2) **B. Abdellaoui** , K. Biroud and A. Primo : *A semilinear parabolic problem with singular term at the boundary*. J. Evol. Equ. Vol. 16, Issue 1 (2016), pp 131-153
- 3) **B. Abdellaoui** , M. Medina, I. Peral and A. Primo : *The effect of the Hardy potential in some Calderón-Zygmund properties for the fractional Laplacian*. J. Differential Equations, 260 (2016) 8160-8206.
- 4) **B. Abdellaoui** , M. Medina, I. Peral and A. Primo : *Optimal results for the fractional heat equation involving the Hardy potential*. Nonlinear Anal. TMA. Vol. 140, 2016, 166–207.
- 5) **B. Abdellaoui** , A. Attar and R. Bentifour : *On the Fractional  $p$ -laplacian equations with weight and general datum*. Advances in Nonlinear Analysis. Published Online : 2016-12-02. doi.org/10.1515/anona-2016-0072
- 6) **B. Abdellaoui** and R. Bentifour : *Caffarelli-Kohn-Nirenberg type inequalities of fractional order with applications*. Journal of Functional analysis 272, No 10, 2017, 3998-4029.
- 7) **B. Abdellaoui** , A. Dall’aglio and S. Segura : *Multiplicity of solutions to elliptic problems involving the 1-Laplacian with critical gradient term*. Adv. Nonlinear Stud. 17, 2017, No. 2, 333-353.
- 8) **B. Abdellaoui** , A. Dieb and E. Valdinoci : *A nonlocal concave-convex problem with nonlocal mixed boundary data*. Communication on pure and Applied analysis, 17, No 3, 2018, 1103-1120.
- 9) **B. Abdellaoui** , A. Attar, R. Bentifour and I. Peral : *On the Fractional  $p$ -laplacian parabolic equations with general datum* . Ann. Mat. Pura Appl. (4) 197, 2018, No. 2, 329-356.
- 10) **B. Abdellaoui** and I. Peral : *Towards a deterministic KPZ equation with fractional diffusion : the stationary problem*. Nonlinearity 31, 2018, 1260-1298.
- 11) **B. Abdellaoui** , A. Attar, D. Abdelrazek , I. Peral : *Attainability o the fractional Hardy constant with nonlocal mixed boundary conditions : applications*. Discrete and Continuous Dynamical Systems Volume 38, Number 12, 2018.
- 12) **B. Abdellaoui** , A. Attar, R. Bentifour and I. Peral : *On a fractional quasilinear parabolic problem : the influence of the Hardy potential*. Nonlinear Differ. Equ. Appl. 25, 30 (2018). Doi.org/10.1007/s00030-018-0521-y.
- 13) **B. Abdellaoui** , A. Attar and E.H. Laamri : *On the existence of positive solutions to semilinear elliptic systems involving gradient term*. Appl. Anal. 98 (2019), no. 7, 1289-1306.
- 14) **B. Abdellaoui**, D. Abdelrazek and F. Mahmoudi : *On the fractional Lazer-McKenna conjecture with superlinear potential* . Calc. Var. (2019) 36 pages, 58 :7https://doi.org/10.1007/s00526-018-1444-5.
- 15) **B. Abdellaoui**, A. J. Fernandez : *Fractional elliptic problem with non local gradient : regularity and existence results*. Proceedings of the Royal Society of Edinburgh, page 1 of 37DOI :10.1017/prm.2019.60.
- 16) **B. Abdellaoui** , A. Primo, I. Peral : *Fujita type exponent for Fractional parabolic equation with Hardy potential*. 2020, Volume 2, Issue 4 : 639-656. doi : 10.3934/mine.2020029.
- 17) **B. Abdellaoui** , A. Primo, I. Peral, F. Soria : *Fractional elliptic problems with gradient term and Hardy potential : existence and non existence of a solution*. Nonlinear Analysis 201 (2020) article 111942, pp. 1-29.
- 18) **B. Abdellaoui** , A. Attar, R. Bentifour, El-Haj Laamri : *Nonlinear parabolic system involving potential term and nonlinear gradient term* . Mediterr. J. Math. 17 (2020), no. 4, Art. 119, 30 pp.
- 19) **B. Abdellaoui** , P. Ochoa, I. Peral : *A note on quasilinear equations with fractional diffusion*. Mathematics in Engineering 2021, Volume 3, Issue 2 : 1-28. doi : 10.3934/mine.2021018.
- 20) **B. Abdellaoui** , K. Biroud and E.H. Laamri : *Existence and non existence of positive solutions to a fractional parabolic problem with singular weight at the boundary*. To appear in Journal of evolution equation. Doi.org/10.1007/s00028-020-00623-9

## 6 PARTICIPATION IN CONGRESS- Invited Speaker.

- 1) Onzième Rencontre d'Analyse Mathématique et Applications : RAMA11, Sidi Bel Abbes 21-24 novembre 2019.
- 2) Workshop on differential equations and dynamical systems (CIMPA), Bejaia-Algeria 10-14 March 2019.
- 3) Ecole de Mathématique Africaine (CIMPA), Kénitra, Morocco, 14-20 April 2019.
- 4) Differential Equations : Theory, Methods and Applications, DETMA 2018, Setif, Algeria, 9-10 April, 2018.
- 5) Premier Congrès Franco-Marocain de Mathématiques Appliquées, Marrakesh, Morocco 16/04/2018 to 20/04/2018.
- 6) New trends on Partial Differential Equations "Un homenaje a Ireneo Peral", Granada, Spain May 24-26 2017.
- 7) Conférence franco-algérienne EDP et Applications, Poitiers, France du 16-19 Juin 2014.
- 8) 9th Euro-Maghrebian Workshop on Evolution equation, Marrakesh, Morocco 22/09/2014 to 26/09/2014.
- 9) Summer Partial Differential Equations Day, Madrid, 25 Jun 2015.

## 7 Organizations of conferences/workshops.

- 1) The main organizer of "Deuxième Workshop Algéro-Français EDP et Applications", Tlemcen University, from 30 April to 03 Mach 2017. <https://2workshop-edp-tlemcen-2017.weebly.com/>
- 2) The main organizer of "Local, Nonlocal problems and differential inclusions", Tlemcen University, 24-25 April 2018.  
<https://journées-a-boucherif-tlemcen-2018.weebly.com/>
- 3) The main organizer and member of the Scientific Committee of "TAMTAM : Tendances dans les Applications Mathématiques en Tunisie Algérie Maroc", Tlemcen University, 23-27 February 2019.  
<https://tamtam2019-univ-tlemcen.weebly.com/actualiteacutes.html>
- 4) member of the Scientific Committee of "Trends in PDE's and related fields", 08-10 April 2019, Sidi Bel Abbès, Algeria". <http://conf-sidi-bel-abbes.ur-acedp.org/>
- 5) member of the Scientific Committee of "Onzième Rencontre d'Analyse Mathématique et Applications : RAMA11, Sidi Bel Abbes 21-24 novembre 2019, Algeria. <https://fse.univ-sba.dz/rama11/conferenciers/>

## 8 LIST OF MAIN FOREIGN RESEARCH INSTIUTES VISITED :2016-2020

- 1) Host Institute : CMM - Center For Mathematical Modeling - Universidad de Chile, 08-24 August 2016.
- 2) Host Institute : University Hassan II of Casablanca, Morocco, 16-24 December 2017.
- 3) Host Institute : Institut Elie Cartan de Lorraine (Campus Aiguillettes), Université de Lorraine, Nancy, France (14 February, 14 march, 2017 and form 10 Jun to 10 August 2019).
- 4) Host Institute : Département de Mathématiques, Université de Besançon, Besançon, France, 09-27 march 2018.
- 5) Host Institute : Département de Mathématiques, Université Ibn Tofail, Kénitra, Morroco, 15-20 April 2019.
- 6) Host Institute : University Autonoma of Madrid-Spain, 29/02/2020-14/03/2020.