

## Part A. PERSONAL INFORMATION

CV date 29/09/2018

First and Family name	David Arcoya Álvarez		
Social Security, Passport, ID number	XXXXXX	Age	XX
Researcher numbers	Researcher ID	M-2907-2014	
	Orcid code	0000-0002-7284-2413	

### A.1. Current position

Name of University/Institution	University of Granada		
Department	Mathematical Analysis		
Address and Country	Calle Severo Ochoa, s/n, 18071 - Granada		
Phone number	XXXXXX	E-mail	XXXXXX
Current position	Full Professor	From	27/06/07
Espec. cód. UNESCO	120220 - Partial differential equations		
Palabras clave	Nonlinear analysis; Nonlinear Partial Differential Equations; Variational and topological methods;		

### A.2. Education

PhD	University	Year
PHD in Mathematics	University of Granada	1990
Degree in Mathematics	University of Granada	1986

### A.3. JCR articles, h Index, thesis supervised...

The data referring to citations have been obtained from the web of science of Thomson Reuters and Scopus:

Number of research sex-year periods (sexenios) obtained: 5

Date of the last "sexenio" obtained: 12/31/2016

Number of PHD theses supervised in the last 10 years: 4

Number of publications: 62

Total number of citations: 870 in 638 articles.

Total number of citations excluding self-citations: 795

Total number of citations excluding self-citations of all authors: 714

Average number of citations per article: 14,03

Citations in the last 5 years (not including the current year): 315

Average number of citations / year during the last 5 years: 63

Number of co-authors 33

H-index: 18

Number of publications in the first quartile (Q1) in the closest JCR-index to its year of publication: 24

Number of publications in the first decile (D1) in the closest JCR-index to its year of publication: 9

## Part B. CV SUMMARY (max. 3500 characters, including spaces)

Research stays (minimum 4 weeks):

Scuola Normale Superiore-Pisa (4 stays of 9, 14, 4 and 4 weeks)

Università di Roma I (2 stays of 4 weeks)

S.I.S.S.A.-Trieste (4 weeks)

E.P.F.L.-Laussane (4 weeks)

Other stays in Rome, Trieste, Seville, Venice, Besançon, Naples and London.

Participation in research contracts of special relevance with enterprises:

BBV Chair Professor A. Ambrosetti, Cátedra Banco Bilbao Vizcaya Foundation, U.A..M. Madrid and University of Granada, 1/05/1998 - 31/05/1998. Responsible: Irene Peral. TOTAL: € 4800.

Visiting Professors Award, Iberdrola, U.A..M. Madrid and University of Granada, October 2000-September 2003. Responsible: Irene Peral, TOTAL: 60000 €.

Organization of congresses:

"Symposium Nonlinear Problems" in Alhambra 2000, Granada 2000.

"MINI-Workshop of Semi-linear Equations of Elliptical Type", Granada 2005.

"Recent Advances in Differential Equations", Almería, 2005.

"Third Workshop on recent advances in the Analysis and Control of Nonlinear Differential Equations", Granada, 2006.

Recent Trends in Nonlinear Partial Differential Equations. A celebration of the 60th birthday of Prof. Irene Peral, Salamanca 2007.

"First meeting of the network of parabolic and non-linear elliptical equations", San José-Níjar, Almería, 2007

Symposium Nonlinear Elliptic PDE's at SIMAI 2010, Cagliari, Sardinia, 2010.

International Workshop on Variational Problems and PDE's, Sao Paulo (Brazil), 2013.

Congress of the RSME 2015, Granada 2015.

Espalia 2015, three days in PDE's and Calculus of Variations between Italy and Spain. Rome, 2015

He has participated as guest lecturer in more than 37 congresses in I.C.T.P. Trieste, L'Aquila, Springfield (Missouri), Santander, Oberwolfach, S.N.S. Pisa, Lisbon, Las Palmas de Gran Canaria, Tetouan, Salamanca, Lausanne, Edinburgh, Rome, La Laguna, Madrid, Otranto, Nankai (China), Coimbra, Wuhan (China), Valencia, Granada, Perugia, São Paulo, Besançon. He has presented communication at various conferences in Valencia, Valladolid, Prague, Barcelona, Capri, Lisbon, Vic, Madrid, Seville, Bari.

He has taught at the FisMat master's and doctorate since 2006.

He has acted as referee for more than 36 journals, among others: Annales de l'Institut Henri Poincaré (C) Analyze nonlineaire, Calc Var. and PDE, Comm. P.D.E, Comm. Pure and Applied Analysis, Differential and Integral Equations, Discrete and Continuous Dynamical Systems, S. Series, ESSAIM COCV, Journal of the European Mathematical Society (JEMS), Journal of Differential Equations, Journal of Functional Analysis, Journal of Mathematical Analysis and Applications, Math. Annalen, Nonlinear Analysis T.M.A., Nonlinear Differential Equations and Applications (NoDEA), Proc. Royal Soc. Edinburgh (Section A), Siam Journal of Mathematical Analysis.

He has organized the stay at the UGR of at least 31 International researchers: Antonio Ambrosetti, Vieri Benci, Lucio Boccardo, David G. Costa, Bernard Dacorogna, Andrea Dall'Aglio, Nicola Fusco, Eugenio Montefusco, Marcelo Montenegro, Luigi Orsina, Benedetta Pellacci, Francesco Pettita, Alessio Porretta, Patrick Rabier, Paul H Rabinowitz, Marco Squassina, Charles A. Stuart, Peter Takac, James Ward, Michel Willem, Zhi-Qiang Wang. Nationals: Juan Casado, Jesús García Azorero, Jorge García Melián, Jesús Hernández Alonso, José M. Mazón, Pablo Pedregal, Irene Peral, Ana Primo, Sergio Segura, Antonio Suárez.

## Part C. RELEVANT MERITS

### C.1. Publications (including books)

**1 Scientific paper.** David Arcoya, Alexis Molino and Lourdes Moreno-Mérida, 2018  
Existence and regularizing effect of degenerate lower order terms in elliptic equations beyond the Hardy constant. To appear in Advanced Nonlinear Studies. DOI: 10.1515/ans-2018-0003

**2 Scientific paper.** David Arcoya and Lucio Boccardo, 2018, Regularizing effect of  $L^q$  interplay between coefficients in some elliptic equations, Journal of Mathématiques Pures et Appliquées, 111, 106-125.

**3 Scientific paper.** Antonio Ambrosetti and David Arcoya, 2017, Positive solutions of elliptic Kirchhoff equations, *Advanced Nonlinear Studies* 17(1), pp. 3-15.

**4 Scientific paper.** David. Arcoya and Lourdes Moreno-Mérida, 2017, The effect of a singular term in a quadratic quasilinear problem. *J. Fixed Point Theory Appl.* 19, no. 1, 815–831.

**5 Scientific paper.** David Arcoya Álvarez, José Carmona Tapia and Pedro J. Martínez-Aparicio. 2017. Comparison principle for elliptic equations in divergence with singular lower order terms having natural growth. *Communications in Contemporary Mathematics. World Scientific.* 19-2, 1650013, pp.1-11

**6 Scientific paper.** A. Ambrosetti y D. Arcoya: Remarks on homogeneous elliptic Kirchhoff equations. *NoDEA Nonlinear Differential Equations Appl.* 23 (2016), no. 6, Art. 57.

**7 Scientific paper.** David Arcoya, Colette De Coster, Louis Jeanjean and Kazunaga Tanaka, 2015, Continuum of solutions for an elliptic problem with critical growth in the gradient, *Journal of Functional Analysis*, 268, 2298-2335.

**8 Scientific paper.** David Arcoya, Colette De Coster, Louis Jeanjean and Kazunaga Tanaka, 2014, Remarks on the uniqueness for quasilinear elliptic equations with quadratic growth conditions. *Journal of Mathematical Analysis and Applications*, 420 772-780.

**9 Scientific paper.** David Arcoya and Lourdes Moreno-Mérida, 2014, Multiplicity of solutions for a Dirichlet problem with a strongly singular nonlinearity, *Nonlinear Analysis*, 95 281-291

**10 Scientific paper.** David Arcoya, José Carmona y Pedro J. Martínez-Aparicio, 2014, Gelfand type quasilinear elliptic problems with natural growth, *Annal. De L'Institut Henri Poincare-Analyse non Lineaire*, 31 249-265.

## C.2. Research projects and grants

1.- MTM2015-68210-P, Análisis No Lineal y Ecuaciones en Derivadas Parciales Elípticas  
Funding body: Ministerio de Economía y Competitividad 2015. Principal Investigator: David Arcoya Álvarez and David Ruiz Aguilar, University of Granada. Date: from January 2016 to December 2018, Amount: 60000 euros + FPI. Type of participation: Principal Investigator

2.- MTM2012-31799, Análisis no lineal y ecuaciones en derivadas parciales. Funding body: Ministerio de Economía y Competitividad. D.G.I 2012. Principal investigator: David Arcoya Álvarez, University of Granada. Date: 01/01/2013 - 31/12/2015. Amount: 42000 euros + FPI. Type of participation: Principal Investigator

3.- MTM2009-10878, Análisis no lineal y ecuaciones en derivadas parciales. Funding body: Ministerio de Ciencia e Innovación 2009. Principal investigator: David Arcoya Álvarez, University of Granada. Date: 01/01/2010 - 31/12/2012. Amount: 110.715,02 euros. Type of participation: Principal Investigator

4.- A/018152/08. Ecuaciones no lineales. Funding body: Programa de Cooperación Interuniversitaria PCI-ESPAÑA - PAISES DEL MEDITERRÁNEO 2008. Principal investigator: Hichem Ounaies (Túnez), José Carmona Tapia (España), Universidad de Almería. Date: 10/01/2009-09/01/2010. Amount: 8000 euros. Type of participation: Researcher (Equipo investigador)

5.- HI2008-0106. Métodos variacionales y topológicos en Análisis no-lineal y geometría con aplicaciones. Funding body: Ministerio de Ciencia e Innovación 2008. Principal investigator: Miguel Sánchez Caja, University of Granada. Date: 01/01/2009-31/12/2010. Amount: 11.700 euros. Type of participation: Researcher (Equipo investigador)

6.- MTM2006-09282, Análisis no lineal y ecuaciones en derivadas parciales elípticas.  
Funding body: Ministerio de Educación y Ciencia, 2006. Principal investigator: David Arcoya

Álvarez, University of Granada. Date: 01/10/2006 - 30/09/2009. Amount: 68870 euros + FPI.  
Type of participation Researcher (Equipo investigador)

7.- FQM116, Análisis No Lineal y Ecuaciones Diferenciales. Funding body: Junta de Andalucía. Principal investigator: David Arcoya Álvarez, University of Granada. Date: 2004-

### **C.3. Contracts**

### **C.4. Patents**

### **C.5 Supervision tasks**

Co-supervisor PHD-thesis of José M. Mendoza Aranda, Univ. Fed São Carlos, Brasil 2018  
Co-supervisor PHD-thesis of Alexis Molino Salas, Universidad de Granada, 2018.  
Co-supervisor PHD-thesis of Lourdes Moreno Mérida, Universidad de Granada, 2016.  
Co-supervisor PHD-thesis of Pedro J. Martínez-Aparicio, Universidad de Granada, 2009.

### **C.6 Evaluation tasks**

Evaluator of the ANEP 2014, 2013, 2012.  
Evaluator in the year 2012 of "eValuation if Quality if Research VQR 2004-2010" of the research developed by researchers from Italian universities and research centers for the "Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca (ANVUR)" of the "Ministero dell' Istruzione, dell'Università e della Ricerca ", Italy.  
Member of the Evaluation Commission of the MTM-2011 and MTM-2008 program.  
Evaluator of the agency for the quality of the university system of Castilla y León (Nov 2011, Nov. 2010).

### **C.7 Member of international committees**

President of the Scientific Committee of the Congress of the RSME 2015, Granada 2015.  
Member of the scientific committee of the International Workshop on Variational Problems and PDE's, Sao Paulo (Brazil), 2013.