



# Europass Curriculum Vitae

## Personal information

Name and surname

**David Ruiz**

Address(es)

Telephone(s)

Fax(es)

E-mail

Nationality

Date of birth

Gender

## Occupational field

## Work experience

Dates

2019-

Occupation or position held

Full professor,

Main activities and responsibilities

Teaching and researching

Name and address of employer

University of Granada

Type of business or sector

## Education and training

Dates

2002

Title of qualification awarded

PhD in mathematics

Principal subjects/occupational skills covered

University of Granada

Name and type of organisation providing education and training

Level in national or international classification

## Personal skills and competences

Mother tongue(s)

**Spanish**

Other language(s)

Self-assessment

European level (\*)

**Italian**

**English**

**French**

Understanding		Speaking		Writing	
Listening		Reading		Spoken interaction	
C1		C1		C2	
B2		B2		C1	
B1		B1		B1	
					C1
				B2	
				B1	
					B1

(\*) *Common European Framework of Reference for Languages*

## Publications

1. Jacopo Bellazzini and David Ruiz, *Finite energy travelling waves for the Gross-Pitaevskii equation in the subsonic regime*, preprint [arXiv.org/pdf/1911.02820](https://arxiv.org/pdf/1911.02820.pdf), to appear in American J. of Mathematics.
2. Aleks Jevnikar, Rafael López Soriano, María Medina and David Ruiz, *Blow-up analysis of conformal metrics of the disk with prescribed Gaussian and geodesic curvatures*, preprint [arXiv.org/pdf/2004.14680](https://arxiv.org/pdf/2004.14680.pdf), to appear in Analysis and PDEs.
3. R. López-Soriano, A. Malchiodi and D. Ruiz, *Conformal metrics with prescribed Gaussian and geodesic curvatures*, preprint [arXiv.org/abs/1806.11533](https://arxiv.org/abs/1806.11533), to appear in Ann. Sci. de l'École Normale Supérieure.
4. Francisco Javier Martínez Sánchez, David Ruiz, *Existence and nonexistence of traveling waves for the Gross-Pitaevskii equation in tori*, Mathematics in Engineering 5 (2023), no. 1, paper No. 11, 14 pp., special volume in the memory of Ireneo Peral.
5. David Ruiz, Pieralberto Sicbaldi and Jing Wu, *Overdetermined elliptic problems in onduloid-type domains with general nonlinearities*, J. Functional Analysis 283 (2022), no. 12, paper No. 109705.
6. Sergio Cruz-Blázquez, Andrea Malchiodi and David Ruiz, *Conformal metrics with prescribed scalar and mean curvature*, Journal für die Reine und Angewandte Mathematik 789 (2022), 211–251.
7. A. Ros, D. Ruiz and P. Sicbaldi, *Solutions to overdetermined elliptic problems in nontrivial exterior domains*, J. European Math. Society 22 (2020), 253–281.
8. S. Cruz-Blázquez and D. Ruiz, *Prescribing Gaussian and geodesic curvature on the disk*, Advanced Nonlinear Studies 18 (2018), 453–468.
9. D. Ruiz and J. Van Schaftingen, *Odd symmetry of least energy nodal solutions for the Choquard equation*, J. Differential Equations 264 (2018), 1231–1262.
10. F. De Marchis, R. López-Soriano and D. Ruiz, *Compactness, existence and multiplicity for the singular mean field problem with sign-changing potentials*, J. Math. Pures Appliquées 115 (2018), 237–267.
11. A. Ros, D. Ruiz and P. Sicbaldi, *A rigidity result for overdetermined elliptic problems in the plane*, Comm. Pure Appl. Math. 70 (2017), 1223–1252.
12. T. D'Aprile, A. Pistoia and D. Ruiz, "Asymmetric blow-up for the SU(3) Toda System", J. Funct. Anal. 271 (2016), 495–531.
13. Y. Jiang, A. Pomponio and D. Ruiz, "Standing waves for a gauged nonlinear Schrödinger equation with a vortex point", Comm. Contemp. Math 18 (2016), 1550074 (20 pages).
14. R. López-Soriano and D. Ruiz, "Prescribing the Gaussian curvature in a subdomain of  $S^2$  with Neumann boundary condition", J. Geom. Anal. 26 (2016), 630–644.
15. T. D'Aprile, A. Pistoia and D. Ruiz, *A continuum of solutions for the SU(3) Toda System exhibiting partial blow-up*, Proc. London Math. Soc. 111 (2015), 797–830.
16. L. Battaglia, A. Jevnikar, A. Malchiodi and D. Ruiz, *A general existence result for the Toda system on compact surfaces*, Advances in Mathematics 285 (2015), 937–979.
17. A. Malchiodi and D. Ruiz, *On the Leray-Schauder degree of the Toda system on compact surfaces*, Proc. AMS. 143 (2015), 2985–2990.
18. A. Pomponio and D. Ruiz, *Boundary concentration of a Gauged Nonlinear Schrodinger Equation*, Calc. Var. PDE 53 (2015), 289–316
19. A. Pomponio and D. Ruiz, *A Variational Analysis of a Gauged Nonlinear Schrödinger Equation*, J. Eur. Math. Soc 17 (2015), 1463–1486.
20. A. Malchiodi and D. Ruiz, *A variational Analysis of the Toda System on Compact Surfaces*, Comm. Pure Appl. Math. 66 (2013), 332–371.
21. D. Ruiz, *A note on the uniformity of the constant in the Poincaré inequality*, special volume dedicated to A. Ambrosetti, Advanced Nonlinear Studies 12 (2012), 889–903.
22. P. D'Avenia, A. Pomponio and D. Ruiz, *Semi-classical states for the Nonlinear Schrödinger Equation on saddle points of the potential via variational methods*, Journal of Functional Analysis, 262 (2012), 4600–4633.
23. I. Ianni y D. Ruiz, *Ground and bound states for a static Schrodinger-Poisson-Slater problem*, Comm. Contemp. Mathematics 14, (2012), No. 1.
24. A. Malchiodi and D. Ruiz, *New improved Moser-Trudinger inequalities and singular Liouville equations on compact surfaces*, GAFA 21 (2011), 1196–1217.

25. T. D'Aprile and D. Ruiz, *Positive and sign-changing clusters around saddle points of the potential for nonlinear elliptic problems*, Mathematische Zeitschrift 268 (2011), 605-634.
26. D. Ruiz y G. Vaira, *Cluster solutions for the Schrödinger-Poisson-Slater problem around a local minimum of the potential*, Revista Matemática Iberoamericana 27 (2011), 253-271.
27. D. Ruiz, *On the Schrödinger-Poisson-Slater system: behavior of minimizers, radial and nonradial cases*, Archive for Rational Mechanics and Analysis 198 (2010), 349-368.
28. D. Ruiz and G. Siciliano, *Existence of ground states for a modified nonlinear Schrodinger equation*, Nonlinearity 23 (2010), 1221-1233.
29. A. Ambrosetti and D. Ruiz , *Multiple bound states for the Schrödinger-Poisson problem*, Comm. Contemp. Math. 10 (2008), 391-404.
30. A. Ambrosetti, G. Cerami and D. Ruiz, *Solitons of linearly coupled systems of semilinear non-autonomous equations on  $R^n$*  , Journal of Functional Analysis 254 (2008), 2816-2845.
31. D. Ruiz and G. Siciliano, *A note on the Schrödinger-Poisson-Slater equation on bounded domains* , Advanced Nonlinear Studies 8 (2008), 179-190.
32. D. Ruiz and A. Suárez, *Existence and uniqueness of positive solution of a logistic equation with nonlinear gradient term*, Proc. Royal Soc. Edinburgh Sect. A 137 (2007), 555-566.
33. A. Ambrosetti, E. Colorado and D. Ruiz, *Multi-bump solitons to linearly coupled systems of nonlinear Schrödinger equations*, Calculus of Variations and PDE 30 (2007), 85-112.
34. D. Ruiz, *The Schrödinger-Poisson equation under the effect of a nonlinear local term*, Journal of Functional Analysis 237 (2006), 655-674.
35. A. Ambrosetti and D. Ruiz, *Radial solutions concentrating on spheres of Nonlinear Schrödinger equations with vanishing potentials*, Proc. Royal Soc. Edinburgh 136 A (2006), 889-907.
36. D. Arcoya and D. Ruiz, *The Ambrosetti-Prodi problem for the p-laplace operator*, Comm. in PDE 31 (2006), 849-865.
37. A. Ambrosetti, A. Malchiodi and D. Ruiz, *Bound states of nonlinear Schrödinger equations with potentials vanishing at infinity*, Journal d'Analyse Mathématique 98 (2006), 317-348.
38. A. Cañada and D. Ruiz, *Asymptotic analysis of oscillating parametric integrals and ordinary boundary value problems at resonance*, Journal of Math. Anal. and Appl. 313 (2006), 218-233.
39. D. Ruiz, *Semiclassical states for coupled Schrödinger-Maxwell equations: concentration around a sphere*, Mathematical Models and Methods in Applied Sciences 15 (2005), 141-164.
40. A. Ambrosetti, A. Malchiodi and D. Ruiz, *Recent trends on nonlinear elliptic equations on  $R^n$*  . Rend. Accad. Naz. Sci. XL Mem. Mat. Appl. (5) 29 (2005), 3-13.
41. A. Cañada and D. Ruiz, *Periodic perturbations of a class of resonant problems*, Calculus of Variations and PDE 23 (2005), 281-300.
42. D. Ruiz and J. R. Ward, *Some notes on periodic systems with linear part at resonance*, Discrete and Continuous Dynamical Systems 11 (2004), 337-350.
43. D. Ruiz, *A priori estimates and existence of positive solutions for strongly nonlinear problems*, Journal of Diff. Eq. 199 (2004), 96-114.
44. D. Ruiz, *Resonant semilinear problems with nonlinear term depending on the derivative*, Journal of Math. Analysis and Appl. 295 (2004), 163-173.
45. D. Bonheure, C. Fabry and D. Ruiz, *Problems at resonance for equations with periodic nonlinearities*, Nonlinear Analysis 55 (2003), no. 5, 557-581.
46. D. Ruiz and M. Willem, *Elliptic problems with critical exponent and Hardy potentials*, Journal of Diff. Eq. 190 (2003), 524-538.
47. J. Mawhin and D. Ruiz, *A strongly nonlinear Neumann problem at resonance with restrictions on the nonlinearity just in one direction*, Topol. Meth. in Nonl. Anal. 20 (2002), 1-14.
48. A. Cañada and D. Ruiz, *Resonant problems with multidimensional kernel and periodic nonlinearities*, Diff. Int. Equations 16 (2003), 499-512.
49. A. Cañada and D. Ruiz, *Resonant nonlinear boundary value problems with almost periodic nonlinearity*, B. Belgian. Math. Soc.-Simon Stevin 9 (2002), 193-204.