

**Recent research papers:**

1. Perturbation of  $\Delta u + u^{(N+2)/(N-2)} = 0$ , the scalar curvature problem in  $\mathbb{R}^N$  and related topics, *J. Funct. Analysis*, 165 (1999), 117-149 (with J. Garcia Azorero and I. Peral)
2. Elliptic variational problems in  $\mathbb{R}^N$  with critical growth, *J. Diff. Equat.* 168-1 (2000), 10-32 (with J. Garcia Azorero and I. Peral)
3. A multiplicity result for the Yamabe problem on  $S^n$ , *J. Funct. Analysis*, 168-2 (1999), 529-561 (with A. Malchiodi)
4. On the symmetric scalar curvature problem on  $S^n$ , *J. Diff. Equat.*, 170-1 (2001), 228-245 (with A. Malchiodi)
5. A Note on the Scalar Curvature Problem in the presence of symmetries, *Ricerche di Mat.*, 49 (2000), Suppl., 169-176 (with Y.Y. Li and A. Malchiodi)
6. Multiplicity results for the Yamabe problem on  $S^n$ , to appear in the Proceedings of the NAS Conference on Nonlinear elliptic equations, Irvine, CA (1999)
7. Scalar curvature under boundary conditions, *C.R.Acad. Sci. Paris*, 330 (2000), 1013-1018 (with Y.Y. Li and A. Malchiodi)
8. Multiplicity results for some nonlinear Schrödinger equations with potentials, *Archive Rat. Mech and Analysis*, 159 (2001), 229-252 (with A. Malchiodi and S. Secchi)
9. Remarks on a class of semilinear elliptic equations on  $\mathbb{R}^n$ , via perturbation methods, *Advanced Nonlin. Studies*, 1 (2001), 1-13 (with J. Garcia Azorero and I. Peral)
10. Yamabe and Scalar Curvature problem under boundary conditions, *Math. Annalen*, 322 (2002), 667-699 (with Y.Y. Li and A. Malchiodi)
11. Solutions concentrating on spheres to symmetric singularly perturbed problems, *C.R.Acad. Paris*, 335 (2002), 145-150 (with A. Malchiodi and W.M. Ni)
12. Positive solutions to a class of quasilinear elliptic equations on  $\mathbb{R}$ , *Discr. Cont. Dyn. Systems*, 9-1 (2003), 55-68 (with Z.Q. Wang)
13. Singularly perturbed elliptic equations with symmetry: existence of solutions concentrating on spheres, Part I, *Comm. Math. Phys.*, 235 (2003), 427-466 (with A. Malchiodi and W.M. Ni)
14. Singularly perturbed elliptic equations with symmetry: existence of solutions concentrating on spheres, Part II, *Indiana Univ. Math. J.*, 53 (2004), 297-329 (with A. Malchiodi and W.M. Ni)
15. Ground states of nonlinear Schrödinger equations with potentials vanishing at infinity, *Rend. Mat. Acc. Lincei*, 9-15 (2004), 81-86 (with V. Felli and A. Malchiodi)
16. Ground states of nonlinear Schrödinger equations with potentials vanishing at infinity, *J. Eur. Math. Soc.*, 7-1 (2005), 117-144 (with V. Felli and A. Malchiodi)
17. Nonlinear Schrödinger Equations with vanishing and decaying potentials, *Diff. Int. Equations*, 18-12 (2005), 1321-1332 (with Z.Q. Wang)
18. Bound states of Nonlinear Schrödinger Equations with Potentials Vanishing at Infinity, *J. d'Analyse Math.*, 98 (2006), 317-348 (with A. Malchiodi and D. Ruiz)
19. Radial solutions concentrating on spheres for NLS with vanishing potentials, *Proc. Royal Soc. Edinburgh*, to appear (with D. Ruiz)

20. Bound and ground states of coupled nonlinear Schrödinger equations, C. R. Acad. Sci. Paris, Ser. I **342-7** (2006), 453-458 (with E. Colorado)
21. A Note on nonlinear Schrödinger systems: existence of a-symmetric solutions, Adv. Nonlin. Studies, 6 (2006), 149-155.
22. Standing waves of some coupled nonlinear Schrödinger equations, J. London Math. Soc., to appear. (with E. Colorado)
23. Multi-bump solitons to linearly coupled NLS systems, Cal. Var. PDE, to appear. (with E. Colorado and D. Ruiz)
24. Multiple bound states for the Schrödinger-Poisson problem, to appear (with D. Ruiz)

**Recent surveys and other papers:**

1. Analisi nonlineare: Metodi variazionali, in Enciclopedia della Scienza e della tecnica, Treccani.
2. Existence and multiplicity results for some nonlinear elliptic equations: a survey, Rend. Mat., 20 (2000), 167-198 (with J. Garcia Azorero and I. Peral).
3. Le equazioni funzionali in analisi non lineare, Boll. U.M.I. - sez. A, 5-A (2002), 393-406
4. Concentration Phenomena for NLS: Recent Results and New Perspectives, Contemporary Mathematics, American Mathematical Society, Providence, RI., to appear (with A. Malchiodi)

**Books:**

1. A primer of nonlinear analysis, Cambridge Studies in Advanced Mathematics No. 34, Cambridge Univ. Press, 1993 (with G.Prodi)
2. Periodic solutions of singular Lagrangian systems, PNLDE No.10, Birkhäuser, 1993 (with V. Coti Zelati)
3. Perturbation methods and semilinear elliptic problems on  $\mathbb{R}^n$ , Progress in Math., Birkhäuser, No. 240, 2006 (with A. Malchiodi) (this book was awarded with the Ferran Sunyer i Balaguer Prize 2005)
4. Nonlinear analysis and semilinear elliptic problems, Cambridge Studies in Advanced Mathematics No. 104, Cambridge Univ. Press, 2007 (with A. Malchiodi).