

# 1 Publications

## A) Published Paper

- [1] *Branches of solutions to semilinear elliptic equations on  $\mathbb{R}^N$* , Math. Z. **230** (1999), 79–105 (with H. Jeanjean and C.A. Stuart).
- [2] *The branch of positive solutions to a semilinear elliptic equation on  $\mathbb{R}^N$* , Rend. Sem. Mat. Univ. Padova **101** (1999), 229–262 (with H. Jeanjean and C.A. Stuart).
- [3] *Branches of solutions to a semilinear elliptic equations with singular coefficients on  $\mathbb{R}^N$* , Rend. Mat. Appl. **19** (1999), 489–506.
- [4] *An application of the Artin-Schreier Theorem*, Comm. Algebra **29** (2001), 4421–4424 (with J. Boéchat).
- [5] *A Neumann problem in exterior domain*, Manuscripta Math. **106** (2001), 63–74 (with D. Cao and H.S. Zhou).
- [6] *SU(3) Chern-Simons vortex theory and Toda systems*, J. Differential Equations **184** (2002), 443–474 (with M. Nolasco).
- [7] *A Dirichlet problem with asymptotically linear and sign changing nonlinearity*, Rev. Mat. Complut. **16** (2003), 465–481 (with P. Magrone and H.S. Zhou).
- [8] *Strong comparison principle for solutions of quasilinear equations*, Proc. AMS **132** (2004), 1005–1011 (with S. Prashanth).
- [9] *Linear vs. nonlinear selection for the propagation speed of solutions of scalar reaction-diffusion equations invading an unstable equilibrium*, Comm. Pure Appl. Math. **57** (2004), 616–636 (with C. Muratov and M. Novaga).
- [10] *Some elliptic semilinear indefinite problems on  $\mathbb{R}^N$* , Proc. Roy. Soc. Edinburgh **134** (2004), 333–361 (with J. Giacomoni and M. Ramaswamy).
- [11] *Gamma-star-shapedness for semilinear elliptic equations*, Comm. Pure Appl. Anal. **4** (2005), 93–99 (with A. Greco).
- [12] *A Deformation Lemma for a Moser-Trudinger type functional*, Nonlinear Anal. **63** (2005), 282–299.
- [13] *A Mountain Pass Theorem without Palais-Smale condition*, C. R. Acad. Sci. Paris Ser. I Math. **341** (2005), 287–291.
- [14] *A priori estimates and uniqueness for some mean field equations*, J. Differential Equations **217** (2005), 154–178 (with L. Zhang).

- [15] *A mean field equation on a torus: one-dimensional symmetry of solutions*, Comm. PDE **30** (2005), 1315–1330 (with X. Cabré and M. Sanchón).
- [16] *On the uniqueness and simplicity of the principal eigenvalue*, Rend. Accad. Naz. Sci. XL Mem. Mat. Appl. **16** (2005), 132–142.
- [17] *Simplicity of principal eigenvalue for  $p$ -Laplace operator with singular indefinite weight*, Arch. Math. (Basel) **86** (2006), 79–89 (with S. Prashanth).
- [18]  *$\Gamma$ -convergence of the Allen-Cahn energy with a rapidly oscillating forcing term*, Interfaces Free Bound **8** (2006), 47–78 (with N. Dirr and M. Novaga).
- [19] *A blowing-up branch of solutions for a mean field equation*, Calc. Var. Partial Differential Equations **26** (2006), 313–330.
- [20] *Uniqueness of solutions for a mean field equation on torus*, J. Differential Equations **229** (2006), 172–185 (with C.S. Lin).
- [21] *Simplicity of the principal eigenvalue for indefinite quasilinear problems*, Adv. Differential Equations **12** (2007), 407–434 (with B. Kawohl and S. Prashanth).
- [22] *One-dimensional symmetry of periodic minimizers for a mean field equation*, Ann. Scuola Norm. Sup. Pisa Cl. Sci. **6** (2007), 269–290 (with C.-S. Lin).
- [23] *A deformation Lemma with an application to a mean field equation*, Topol. Methods Nonlinear Anal. **30** (2007), 113–138.
- [24] *Laplacian eigenvalues for mean zero functions with constant Dirichlet data*, Forum. Math., to appear (with A. Greco).
- [25] *Existence of traveling wave solutions of invasion for Ginzburg-Landau-type problems in infinite cylinders*, Arch. Ration. Mech. Anal., to appear (with C. Muratov and M. Novaga).
- [26] *Isoperimetric profile and uniqueness for Neumann problems*, Ann. Inst. H. Poincaré Anal. Non Linéaire, to appear.
- [27] *Best constant in some exponential Sobolev inequalities*, Indiana Univ. Math. J., to appear (with B. Kawohl).
- [28] *A Minimax Theorem in the presence of unbounded Palais-Smale sequences*, Israel J. Math., to appear (with J. Horák).
- [29] *Global bifurcation for semilinear elliptic problems*, (with M. Ramaswamy).

## **B) Other Publications**

- [30] *Two problems on algebraically closed fields*, Université de Lausanne, Master Thesis, 1992, 80pp.
- [31] *Bifurcation Problems for Special Solutions of Maxwell's Equations*, PhD Thesis, École polytechnique fédérale de Lausanne, no 1748 (1997), 200pp.