Curriculum Vitae

Raul Manasevich

General Information

- **Citizenship:** Chilean.
- **Permanent Mailing Address:**

    Departamento de Ingenieria Matemática and

    Centro de Modelamiento Matematico

    Facultad de Ciencias Fisicas y Matemáticas

    Universidad de Chile

    Casilla 170, Correo 3, Santiago, Chile.
- **email address:** manasevi@dim.uchile.cl

Education

- Civil Engineer (Structures), School of Engineering, Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile (1966).
- Master of Sciences, University of California, Berkeley (1968)
- Ph.D. University of California, Berkeley (1971)

Research Lines

- Boundary Value Problems in Differential Equations
- Nonlinear Differential Equations
- Nonlinear Analysis

Positions

- Assistant Professor, Universidad de Chile, Chile 1964-1966
- Ford Foundation Fellowship for graduate studies, University of California at Berkeley, 1967-1971
- Professor, Universidad de Chile, Chile 1971-1973
- Professor, Universidad de los Andes, Mérida, Venezuela 1974-1981
- Professor, Universidad de Chile, Chile 1982-March 1987
- Full Professor, Universidad de Chile , March 1987-Present
- Research-fellow CEE, Universita degli Studi di Udine, October 1991- July 1992
- Associate Researcher at CMM, CENTER FONDAP FOR MATHEMATICAL MODELING, 2000-present
- Researcher for the DIVISION EL TENIENTE, MINING COMPANY, 2002-present
- Associate Researcher at Millenium Nucleus: COMPLEX ENGINEERING SYSTEMS, 2004-2006.
- Associate Researcher at Millenium Institute: COMPLEX ENGINEERING SYSTEMS, 2007-present.
- Member of the Chilean Academy of Sciences, 2003-present.

Editorial Activities

- Associate Editor, *Journal of Mathematical Analysis and Applications*, since 1999.
- Member of the Editorial Board for *Electronic Journal of Differential Equations*, since 1998.
- Member of the Editorial Board for the journal *Boundary Value Problems*, since 2007.
- Co-Editor in Chief for the journal *The World Journal of Modeling and Simulation*, since 2008.
- Member of the Editorial Board for the journal *Abstract Analysis*, since 2008.
- Member of the Editorial Board for *Journal of Advance Researches on Differential Equations*, since 2008.

- Member of the International Advisory Editorial Board of the *Journal of the Egyptian Mathematical Society*, since 1999.

- Member of the Editorial Board for the journal *Boletim da Sociedade Paranaense de Matematica*, since 2005.

- Member of the Editorial Committee of the *Rendiconti di Matematica de la Università di Trieste*, 1997-2002.

- Member of the Editorial Committee of the *Revista de Matemáticas Aplicadas*, 1987-2006.

Referee activities

Referee for the following journals (most relevant):

- Journal of Differential Equations
- Journal of Functional Analysis
- Journal of Mathematical Analysis and Applications
- SIAM Journal of Mathematical Analyis
- Glasgow Mathematical Journal
- Nonlinear Analysis TMA
- Manuscripta Mathematica
- Electronic Journal of Differential Equations
- Proceedings of the London Mathematical Society
- Nonlinearity
- Proceedings of the American Mathematical Society
- Proceedings of the Royal Society of Edinburgh, Section A
- Differential and Integral Equations
- Abstract and Applied Analysis
- Journal of dynamics and Differential Equations
- Aequationes Mathemticae
- Annales de l'Institut Henri Poincaré (C) Analyse non linéaire

Visiting Professor at the following Universities

- University of Miami, Miami, USA.
- Boise State University, Boise, USA.
- University of Regensburg, Regensburg, Germany.
- Universita degli Studi di Udine, Udine, Italy.
- Delft University of Technology, Delft, The Netherlands.
- Universite Catholique de Louvain, Louvain la Neuve, Belgium.
- Universita degli Studi di Trieste, Trieste, Italy.
- Universite Libre de Bruxelle, Bruxelle, Belgium.
- University of Utah, Salt Lake City, USA.
- Universite Paul Sabatier, Toulouse, France.
- Universite Toulouse I, Toulouse, France.
- University of Minnesota, Minnesota, USA.
- University of Alabama at Birmingham, USA.
- Universita degli Studi di Torino, Torino, Italy.
- Waseda University, Tokio, Japan.
- University of Hiroshima, Hiroshima, Japan.
- Academy of Sciences of the Czech Republic, Czech Republic.
- Université François Rabelais, Tours, France.
- Universidad de Buenos Aires, Buenos Aires, Argentina.
- Universidad Nacional de Medellin, Medellin, Colombia.
- Leiden University, Leiden, The Netherlands.
- PIMS of the University of British Columbia, Canada.

Member of committees

- Chairman of several committees at the Department of Mathematics of Universidad de los Andes, Mérida, Venezuela, 1976-1981.
- Coordinator of the Research Committee, Post-Graduate Committee and member of the Academic Committee at the Department of Mathematics of FCFM, Universidad de Chile. 1982-2000.

- Chairman of the Mathematics Department. Universidad de Chile.F.C. F.M. 1988.
- Member of several research grants evaluation proposals at the University of Chile and Conicyt.
- Member of the Academic Committee for the Centro de Modelamiento Matemático (CMM) at the Universidad de Chile, 2000-2005.
- Main Coordinator of the *Ciencia de Frontera* Committee for the Chilean Academy of Sciences, since 2003.

Grants Evaluations

- Research grant evaluator of Fondecyt proposals for Conicyt (Comisión Nacional de Investigación Científica y Tecnólogica, Chile).
- Research grant evaluator of mathematics proposals for the Universidad de Chile.
- Research grant evaluator of mathematics proposals for the Universidad Santa Maria, Chile.
- Research grant evaluator of mathematics proposals for the Universidad de Concepción, Chile.
- Research grant evaluator of mathematics proposals for Fundación Andes, Chile.
- Research grant evaluator of mathematics proposals for Czech Academy of Sciences.
- Research grant evaluator of mathematics proposals for Israel Science Foundation.

Meetings Organization

- Main Organizer of the First USA-CHILE in Nonlinear Analysis and Differential Equations, Santiago, Chile, April 1985.
- Chairman of the organizing committee for the USA-Chile Workshop on Nonlinear Analysis, Viña del Mar-Valparaiso, Chile, January 10 - 15, 2000.
- Member of the organizing committee for the Vienna Workshop on Nonlinear Models and Analysis, Vienna, Austria, May 20-24, 2002.

- Member of the organizing committee for the 5-th Americas Conference on Differential Equations and Nonlinear Dynamics, Edmonton, Canada, July 7-12, 2002.

- Member of the International Jury for the 5-th Americas Conference on Differential Equations and Nonlinear Dynamics, Edmonton, Canada, July, 2002, for the best graduate student poster session of the Americas.

- Main local Organizer of the Pan-American Advanced Studies Institute on Partial Differential Equations, Inverse Problems and Non-Linear Analysis CMM-Universidad de Chile, Santiago, Chile, January 6-18, 2003, (170 participants).

- Member of the organizing committee for the V Workshop On Nonlinear Differential Equations, Imec-Unicamp, Campinas, Brazil, June 7-11, 2004. In honor of Djairo de Figueiredo.

- Main Organizer of the Pan-American Advanced Studies Institute on Differential Equations and Nonlinear Analysis CMM-Universidad de Chile, Santiago, Chile, January 10-21, 2005 (180 participants).

- Main Organizer of the US-Chile Workshop (University of Chile- Carnegie Mellon university), New Developments in Partial Differential Equations II.

- Member of the International Scientific Committee for the VII Americas Conference School in Differential Equations, Cartagena, Colombia, July 23-27, 2007.

- Organizer of a special session for the 7th AIMS Internacional Conference on Dynamical Systems and Differential Equations, May 18-23, 2008, Arlington Texas, USA.

- Organizer of a special session for the Fifth World Congress on Nonlinear Differential Equations, July 2-9, 2008, Orlando, Florida, USA.

Research Grants obtained

At the Universidad de Chile

- DIB-Universidad de Chile 1426 (1982-1986), Differential Equations. Principal Investigator.

- DIB-Universidad de Chile, 2471, (1986-1987), Differential Equations. Principal Investigator.

- DTI-Universidad de Chile, 2471 (1988-1990), Differential Equations. Principal Investigator.

From Fondecyt

- Fondecyt grant 1144/85 (1985-1986). Soluciones Periodicas de Sistemas No Degenerados Periodicamente Forzados. Principal Investigator.

- Fondecyt grant 317/87 (1987). Existencia, Multiplicidad de Soluciones de Ciertas Ecuaciones Diferenciales. Principal Investigator.

- Fondecyt grant 546/88 (1988-1991). Sobre la existencia, multiplicidad y bifurcación de soluciones de ciertas ecuaciones diferenciales. Principal Investigator.

- Fondecyt grant 1209/91 (1991-1993). Existencia y Multiplicidad para ciertas Ecuaciones Diferenciales No Lineales con condiciones de borde.Principal Investigator.

- Fondecyt grant 1940/409 (1994-1996). Un Estudio de Existencia y Multiplicidad de ciertas Ecuaciones Diferenciales No Lineales. Principal Investigator.

- Fondecyt grant 1970/332 (1997-2000) "Existencia y propiedades cualitativas para una clase de ecuaciones diferenciales no lineales. Principal Investigator.

Research grants from Conicyt, USA, Europe

- **National Science Foundation** INT-8602537 (1986-1989). Qualitative Behavior of Solutions of Periodically Forced Non-Degenerated Systems. Researcher. PI Alan Hausrath, Boise State University, USA.

- **European Economic Community** CI1*-CT93-0323 (DG 12 HSMU) (1994-1996) *Some nonlinear boundary value problems for differential equations.* Principal Investigator for the chilean part. In collaboration with Fabio Zanolin from Università degli Studi di Udine, Italy , Jean Mawhin, from Université de Louvain, Louvain-la-Neuve, Belgium , and Manuel del Pino, from Universidad de Chile.

- **Conicyt-Andes-National Sience Foundation** *Qualitative behavior for some nonlinear problems.* Principal Investigators: Raul Manasevich and Klaus Schmitt, from University of Utah, USA.

- **Conicyt-CNRS** (2000-2001) *Qualitative properties for elliptic and parabolic nonlinear equations and systems.* Principal Investigators: Raul Manasevich and Laurent Véron, from Universitè de Tours, France.

- **Conicyt-ECOS** (2000-2002) *Nonlinear parabolic and elliptic equations with applications.* Principal Investigators: Raul Manasevich and Laurent Véron, from Universitè de Tours, France.

- **Conicyt-CONICET** (2000) *Some problems in differential equations and their applications in other disciplines.* Principal Investigators: Raul Manasevich and Maria Cristina Mariani, from Universidad de Buenos Aires, Argentina.

- **Conicyt-NSF** (2002-2004) *Some parabolic equations and systems of ode's with p-Laplacian type of operators.* Principal Investigators: Raul Manasevich and James Ward, from University of Alabama, Birmingham, USA.

Applied Research grants from CODELCO, CHILE

- Análisis de mediciones de desplazamiento utilizando Fibra Óptica, Principal Investigator,2006.
- Implementación computacional e interacción con el visualizador de módulos de diseño óptimo de mediciones y de cálculo numérico de trayectorias de esfuerzos, Researcher, 2007
- Análisis de la Morfología de las Hidrofracturas en Macizo Rocoso Primario, Principal Investigator, 2008
- Comportamiento del campo de esfuerzos en un macizo rocoso primario en relación al pre-acondicionamiento, Principal Investigator, 2009.

Talks

- Positive solutions for a system with p-Laplace like operators, via blow-up, World Congress Nonlinear Analysis-2008, Orlando,FL, July 2-7, 2008.

- Positive solutions for a system with p -Laplace -like operators, via blow-up, Workshop on Differential Equations, Boundary Value Problems and Related Topics, Hejnice, Czech Republic, September 16 - 20, 2007.

- Algunas consecuencias de la Homotopia along p, $p > 1$, Second Workshop on Elliptic and Parabolic PDEs (in honor of Manuel Elgueta), Universidad Católica de Chile, Santiago, Chile, September 3-7, 2007.

- Some results for equations containing a p-Laplace like operator, a review, US-Chile workshop on New Developments in Partial Differential Equations I, Carnegie Mellon University, Pittsburgh, USA, May 21 - 24, 2007.

- Positive solutions for a system with non homogeneous p-Laplace like operators via blow up, 7th Americas School in Differential Equations and Nonlinear Analysis, Universidad de Cartagena, Colombia, July 23 - 27, 2007

- Positive solutions for some quasilinear systems existence and nonexistence, Universidad Nacional de Medellin, Medellin, Colombia, July, 2006.

- Rayleigh quotients and the first eigenvalue for some p-Laplacian vector-valued problems. Topological and variational methods in partial differential equations conference, Guanajuato, Mexico, December 5-9, 2005.

- Some remarks for the first eigenvalue of a vector p-Laplace operator. III International Symposium Nonlinear Partial Differential Equation and Free Boundary Problem, University of Buenos Aires, Argentina, August 04, 2005.

- Positive solutions for some quasilinear systems existence and nonexistence, New directions in PDE, Banff Center, Alberta , Canada, July 2-7, 2005.

- Positive solutions for some quasilinear systems existence and nonexistence, Alpha meeting PDEs in Industry and Engineering, Salzburg, Austria, June 27-30, 2005.

- Pseudo eigenvalues for a problem with a p-Laplace like operator, V Worhop on Nonlinear Differential Equations, in honor of Djairo de Figueredo, Campinas, Brazil, June 7-11, 2004.

- A homotopy along p for systems of PDE with a vector p-Laplace operator, the radial case. Mathematics Colloquium University of Alabama at Birmingham, January 23- 2004.

- Non-trivial solutions for a Dirichlet B. V. P. with a p-Laplace like operator, Symposium on partial differential equations, Foz de Iguacu, Brazil, December 17-19, 2003.

- A vector p-Laplace operator and a homotopy along p for systems, First Brazilian School of Differential Equations (I EBED), Campinas, Brazil, June 9-13, 2003.

- Non-trivial solutions for a system of ode's containing the p-Laplace operator, Georgia Tech, Georgia, USA, February 2003.

- Plenary speaker: Systems of ODE's with a vector p-Laplace operator and a homotopy along p, 5-th Americas Conference on Differential Equations and Nonlinear Dynamics, July 7 - 12, 2002.

- Some multipoint boundary value problems containing the operator $-(\phi(u'))'$. Fourth International Conference on Dynamical Systems and Differential Equations, Wilmington, North Carolina, USA, May 24 - 27, 2002.

- A-priori bounds and existence for a quasilinear elliptic problem with a p-Laplace like operator, Vienna Workshop on Nonlinear Models and Analysis, May 18-24, 2002.

- A class of p Laplacian like systems of ODE's and a Dirichlet boundary value problem. February 2002. Universitá degli studi di Torino, Torino, Italia.

- Some multipoint boundary value problems. Spectra and Nonlinear differential equations, Oberwolfach meeting, March 2001.

- Some results for nonlinear equations and systems of ode's with p-Laplacian like operators, Waseda University, Tokio, and Hiroshima University, Hiroshima, Japan, December 2000.

- Talk: Some remarks about the eigenvalues of the p-Laplacian. IV Americas Conference on Differential Equations and Nonlinear Dynamics, Mérida - Venezuela, October 2000.

- Some eigenvalues problems for the p-Laplacian. University of Buenos Aires, October 2000.

- Radial solutions for $-\mathrm{div}(a|x||\nabla u|\nabla u) = b(|x|)|u|^{q-2}u$ with Dirichlet b.c. and Hardy inequalities, Free University of Brussels, February 2000.

- Mounting Pass in Orlicz spaces, CWI, Amsterdam, The Netherlands, February 1999.

- On a Dirichlet boundary value problem with asymptotically homogeneous operators, Catholic University of Louvain, Louvain La Neuve, Belgium, February 1999.

- Existence of solutions via Mountain Pass in Orlicz spaces, Free University of Brussels, Brussels, Belgium, September 1998.

- Global bifurcations results for some radial p-Laplacian like operators, Workshop in Applied Functional Analysis and Partial Differential Equations organized by Delft University of Technology and Ecole Polytechnique Federale de Lausanne, Delft University of Technology, The Netherlands, March 97.

- Some existence results for positive solutions for p-Laplacian type of equations, Gewöhnliche Differentialgleichungen, Oberwalfach,
  Germany, March 97.

- Some boundary value problems with asymptotically homogeneous operators II, Delft University of Technology, The Netherlands, Dec 96.

- Some boundary value problems with asymptotically homogeneous operators I, Catholic University of Louvain, Louvain La Neuve, Belgium, Dec 96.

- Positive radial solutions for a class of Dirichlet problems, Free University of Brussels, Brussels, Belgium, March 95.

- Talk on existence of positive solutions for the annulus, University of Trieste, Trieste , Italy, Feb. 1995.

- Talk on existence of positive radial solutions for a class of Dirichlet problems, University of Perugia, Perugia, Italy , January 95.

- Talk on Existence via blow up, Toulouse 1, Toulouse, France, July 94.

- Talk on p-Laplacian differential equations, Delft University of Technology, The Netherlands, June 94.

- Talk on DE, International Meeting on ordinary differential equations, Florence, Italy, Aug. 1993.

- Talk on ODE, World Congress on Non Linear Analysis, Tampa, Florida, USA, Aug. 1992.

- Talk on ODE, Mathematics Department, Mathematics Department, Universita di Padova, March 1991.

- Talk on ODE, Mathematics Department, Universita degli Studi di Trieste, Trieste, Italy, March 1991.

- Talk on ODE, Mathematics Department, Universite Libre de Bruxelles, Brussels, Belgium, March 1991.

- Seminar on Nonlinear Analysis, (10 talks), Mathematics Department, L'Universite Paul Sabatier, Toulouse, France, Sep. 1990.

- Talk on ODE, Mathematics Department, L'Universite Paul Sabatier, Toulouse, France, Sep. 1990.

- On the Number of T-Periodic Solutions of $x'' + g(x) = s(1 + h(t))$. Workshop on Variational methods. ICTP, Trieste, ITALIA, Aug. 1998.

- On the Number of T-Periodic Solutions of $x'' + f(t, x) = 0$ via the Poincare-Birkhoff Theorem. Center for Dynamical Systems , Georgia Tech, Atlanta,1989.

- On the Number of T-Periodic Solutions of $u'' + g(u) = s + h(t)$ via the Poincare-Birkhoff Theorem U. of Connecticut, Storrs, 1989.

- On a Nonlinear Comparison Theorem, Boise, Idaho, 1989.

- On the Number of T-Periodic Solutions for $x'' + f(t, x) = 0$, U. of Utah, Salt Lake City, 1989.

- Existence and Multiplicity of T-Periodic solutions for $u'' + f(t, u)$ $= 0$, DMV 1988, Regensburg, Germany.

- Non Linear Sturmian Theory for $(|u'|^{p-2}u') + c(t)|u|^{p-2}u = 0$, Equadiff 87, Xanthi, Grecia. Aug.1987

- Sturm Comparison Theorem for $(|u'|^{p-2}u') + c(t)|u|^{p-2}u = 0$, U. of Alabama. Feb. 1987.

- A Non-Linear Generalization of Sturmian Theory, U. of Miami, Feb. 1987.

- Periodic Solutions of $x'' + f(t, x) = 0$, Generalizing a problem in non-linear elasticity, ELAM, Rio de Janeiro, 1986.

- Periodic Solutions of a certain D.E. First USA-Chile , International Conference on Nonlinear Analysis and Diff. Equations. April-85.

- Periodic Solutions of Periodically Perturbed Non-Degenerate Systems (with Hausrath, A.), SIAM Summer Meeting , July 1984, Seattle, Washington.

- A Non Variational Version of a Max-Min Principle, U.of Miami, Feb. 1982.

- Un Difeomorfismo de Clase C^1, First Latinoamerican Meeting for Applied Math. Dec. 1981, Santiago , Chile.

Editing proceedings of conferences

- **Proceedings of the USA-Chile Workshop on Nonlinear Analysis.** Electronic Journal of Differential Equations, Conference 06, 2001, 1-367. Raul Manasevich and Paul Rabinowitz, editors.

- **Current Developments in Partial Differential Equations.** Lectures from the International School on Partial Differential Equations. CIMPA Summer School held in Temuco, January 1999. Carlos Conca, Manuel del Pino, Patricio Felmer and Raúl Manásevich Editors. Discrete Contin. Dyn. Syst. 8 (2002), no. 2. American Institute of Mathematical Sciences, Springfield, MO, 2002. pp. i–ii and 289–513.

- **Partial differential equations and inverse problems.** Proceedings of the Pan-American Advanced Studies Institute on Partial Differential Equations, Nonlinear Analysis and Inverse Problems held in Santiago, January 6–18, 2003. Edited by Carlos Conca, Raúl Manásevich, Gunther Uhlmann and Michael S. Vogelius. Contemporary Mathematics, 362. American Mathematical Society, Providence

- **Nonlinear differential equation models.** Papers from the Workshop on Nonlinear Models and Analysis held in Vienna, May 20–24, 2002. Edited by Ansgar Jüngel, Raúl Manásevich, Peter A. Markovich and Henrik Shahgholian. Monatsh. Math. 142 (2004), no. 1-2. Springer-Verlag, Vienna, 2004.

- **Contributions to Nonlinear Analysis.** A Tribute to D.G. de Figueiredo on the Occasion of his 70th Birthday Series: Progress in Nonlinear Differential Equations and Their Applications, Vol. 66, Birkhauser. Edited by Cazenave, T.; Costa, D., Lopes, O., Manásevich, R., Rabinowitz, P. Ruf, and B., Tomei, C. 2006.

- **Special number of Journal of Dynamics and Differential Equations.** Contains referred papers from Pasi 2005 on Differential Equations and Non Linear Analysis. Edited by Luis Caffarelli, Raul Manásevich, Hildebrando Rodrigues, and Ying Yi, 2006

PUBLICATIONS

1. Positive solutions for a class of equations with a p-Laplace like operator and weights. (with Drábek P , García-Huidobro M.) Nonlinear Analysis 71 (2009), no. 3-4, 1281–1300.

2. Positive solutions for equations and systems with p-Laplace-like operators. (with García-Huidobro M. and Ward J.) Advances in Differential Equations 14, 5-6 (2009), 401–432.

3. Vector p-Laplacian like operators, pseudo-eigenvalues, and bifurcation. (with García-Huidobro M., Ward J.). Discrete Contin. Dyn. Syst. 19 (2007), no. 2, 299–321.

4. Some Multipoint boundary value problems of Neumann-Dirichlet type involving a p-Laplace like operator (with García-Huidobro M. and Gupta C.). Journal of Mathematical Analysis and Applications, 333 (2007), 247-264.

5. On the Rayleigh quotient and the first eigenvalue for some vector-valued variational problem (with Brock F.) Differential and Integral Equations, 20, 4, (2007), 429-443.

6. Some remarks on infinite dimensional nonlinear elliptic problems (with Clément Ph., García-Huidobro M.). Electronic Journal of Differential Equations, Conf 16 (In honor of Jacqueline Fleckinger) (2007), 81-93.

7. On the structure of positive radial solutions to an equation containing a p-Laplacian with weight (with García-Huidobro M., and Yarur C.) 223, (2006) 51-95, 2006. *Journal of Differential Equations.*

8. On Regions of Existence and Nonexistence of solutions for a System of p-q-Laplacians (with Clément Ph., García-Huidobro M. and Guerra I.) Asymptotic Analysis 48(1,2) (2006), 1-18.

9. Nonlinear Eigenvalues for a Quasilinear Elliptic System in Orlicz-Sobolev Spaces (with Huentutripay J.) Journal of Dynamics and Differential Equations, 18(4) (2006), 901-929.

10. Qualitative properties of ground states for singular elliptic equations with weights (with García-Huidobro M. , Serrin J., and Pucci P.) *Annali di Matematica Pura et Applicata* 185, (2006), 205-243.

11. A Dirichelet-Neumann m-Point bvp with a p-Laplacian Like operator(with García-Huidobro M. and Gupta C.) *Nonlinear Analysis.* 62 (2005), no. 6, 1067–1089

12. An m-point boundary value problem of Neumann type for a p-Laplacian like operator, (with García-Huidobro M. and Gupta C.) *Nonlinear Analysis* 56 (2004) 1071-1089.

13. A comparison result for perturbed radial p-Laplacians (with Sweers G.) *Journal of Mathematical Analysis and Applications* 291 (2004) 1-19

14. A p-Laplacian problem with a multi-point boundary condition (with García-Huidobro, M. Yan, P., Zhang, M) *Nonlinear Analysis* 59 (2004) 319-333.

15. Some results about positive solutions of a nonlinear equation with a weighted Laplacian. (with García-Huidobro, M. Yarur, C.) Bol. Soc. Parana. Mat. (3) 22 (2004), 57-65.

16. Bifurcation through higher order terms for problems at resonance (with García-Huidobro M. and Ward J. R.) The first 60 years of nonlinear analysis of Jean Mawhin, 77–87, World Scientific, 2004.

17. A homotopy along p for systems with a vector p-Laplace operator (with García-Huidobro M. and Ward J. R.) *Advances in Differential Equations* 8 (2003) No. 3, 337-356.

18. Existence results for p-Laplacian-like systems of O.D.E.'s (with García-Huidobro M. and Otani M.) Funkcialaj Ekvacioj 46 (2003) 2, 253-285.

19. A three point boundary value problem containing the operator $-(\phi(u'))'$ (with García-Huidobro M.) Discrete and Continuous Dynamical Systems, Proceedings of the fourth international conference on dynamical systems and differential equations, (2003), 313-319.

20. The spectrum of p-Laplacian systems under Dirichlet, Neumann and periodic boundary conditions (with Mawhin J.) Morse theory, minimax theory and their applications to nonlinear differential equations. 201–216, New Stud. Adv. Math., 1, Int. Press, Somerville, MA, 2003.

21. On the Fredholm alternative for the $p-$Laplacian in one dimension (with Takác P.) *Proceedings London Mathematical Society* 84 (2002) 324-342.

22. A Liouville-type Theorem for Lane-Emden system (with Busca J.) *Indiana University Math. Journal* 51 (2002), no. 1, 37–51.

23. On a nonlinear eigenvalue problem in Orlicz-Sobolev spaces (with Gossez J.P.) *Proceedings of the Royal Society of Edinburgh.* 132 (2002), no. 4, 891-910.

24. Mountain Pass Type Solutions for Quasilinear Elliptic inclusions (with Clément Ph. and García-Huidobro M.) *Communications in Contemporary Mathematics.* 4 (2002) No. 4, 607-639.

25. Equations with a p-Laplacian and an asymmetric nonlinear term (with Fabry C.) *Discrete and Continuous Dynamical Systems.* 7 (2001) 545-557.

26. Generic Fredholm alternative-type results for the one dimensional p-Laplacian (with Drabek P.and Girg P.) *Nonlinear Differential Equations and Applications (NoDEA)* 8 (2001) 285-298

27. Radial solutions for a quasilinear equation via Hardy inequalities (with García-Huidobro M., Kufner A., and Yarur C.) *Differential and Integral Equations* 6 (2001) 1517-1540.

28. Solvability for a Non-linear Three-Point Boundary Value problem with p-Laplacian-Like Operator at Resonance (with García-Huidobro M. and Gupta C.) *Abstract and Applied Analysis* 6 (2001) 191-213.

29. Existence of Positive Singular Solutions for a Class of Quasilinear Elliptic Equations (with García-Huidobro M. and Yarur C.) *Journal of Computational and Applied Mathematics* 113 (2000) 329-352.

30. Ground states and free boundary value problems for the n-Laplacian in n dimensional space (with García-Huidobro M. , Serrin J., Tang M., and Yarur C.) *Journal of Functional Analysis* 172 (2000) 177-201.

31. Mountain Pass Type Solutions for Quasilinear Elliptic Equations (with Clément Ph., García-Huidobro M., and Schmitt K.) *Calculus of Variations and Partial Differential Equations* 11 (2000) 1, 33-62.

32. The spectrum of p-Laplacian systems with various boundary conditions and applications (with Mawhin, J.) *Advances in Differential Equations* 5 (2000) 1289-1318.

33. Existence of ground states for quasilinear nonhomogeneous elliptic system (with García-Huidobro M.) *Journal of Mathematical Analysis and Applications* 251 (2000) 669-694.

34. Boundary value problems for nonlinear perturbations of vector p-Laplacian-like operators (with Mawhin, J.) *Journal of Korean Mathematical Society.* 37 (2000) 665-685.

35. Behavior of positive radial solutions for quasilinear elliptic equations (with García-Huidobro M. and Yarur C.) *Proceedings American Mathematical Society* 129 (2000) 381-388.

36. Periodic solutions of some Complex-valued Liénard and Rayleigh Equations (with Mawhin J. and Zanolin F.) *Nonlinear Analysis T.M.A.* 36 (1999), 997-1014.

37. Positive Solutions of Small Norm to a Quasilinear Elliptic Inclusion Problem (with Clément P. and García-Huidobro M.) *Advances in Differential Equations* 4 (1999), 71-114.

38. The Fredholm alternative at the first eigenvalue for the one dimensional p-Laplacian (with del Pino M. and Drabek P.) *Journal of Differential Equations* 151 (1999) 386-419.

39. On principal eigenvalues for quasilinear elliptic differential operators: An Orlicz-Sobolev space setting (with García-Huidobro M., Le V. K, and Schmitt K.) *Nonlinear Differential Equations and Applications (NoDEA)* 6 (1999) 207-225.

40. On the closed solution to some nonhomogeneous eigenvalue problems with p-Laplacian (with Drabek P.) *Differential and Integral Equations.* 12(6) (1999) 773-788.

41. Positive radial solutions of nonlinear elliptic-like partial differential equations on a ball. (with Garcia-Huidobro M. and Schmitt K.) *Nonlinear Analysis T.M.A.* 35 (1999), 175–190.

42. A noncooperative elliptic system with p-Laplacians systems that preserves positivity. (with Sweers G.) *Nonlinear Analysis T.M.A.* 36 (1999), 511-528.

43. Some Existence and Non-existence Results for a Homogeneous Quasilinear Problem (with Clément P. and Mitidieri E.) *Asymptotic Analysis* 17 (1998) 13-29.

44. Periodic solutions for nonlinear systems with p-Laplacian like operators (with Mawhin J.) *Journal of Differential Equations* 145 (1998) 367-393.

45. On Positive Singular Solutions for a Class of Non Homogeneous p-Laplacian like Equations (with García-Huidobro M. and Yarur C.) *Journal of Differential Equations* 145 (1998) 23-51.

46. Periodic solutions for some nonlinear systems with p-Laplacian like operators. (with Mawhin, J.) *Proceedings of the IV Catalan Days of Applied Mathematics, Tarragona* (1998) 103–122.

47. The Fredholm alternative at the first eigenvalue for the one dimensional p-Laplacian (with del Pino M. and Drabek P). *C.R. Acad. Sci. Paris* 327 (1998) 461-465.

48. Existence of positive radial solutions for a weakly coupled system via blow up (with García-Huidobro M. and Guerra I.) *Abstract and Applied Analysis* 3 (1998), 105-131.

49. Some bifurcation results for a class of p-Laplacian like operators. (with Garcia-Huidobro M. and Schmitt K.) *Differential and Integral Equations* 10(1997), 51–66.

50. Infinitely many solutions for a Dirichlet problem with a non homogeneous p-Laplacian like operator in a ball. (with Garcia-Huidobro M. and Zanolin F) *Advances in Differential Equations* 2(1997), 203-230.

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