

Alfonso Castro

Education

National University of Colombia, Bogotá	B.S. in Mathematics	1972
National University of Colombia, Bogotá	M.S. in Mathematics	1974
University of Cincinnati	Ph.D. in Mathematics	1977

Distinctions

- i) Member of the Colombian Academy of Sciences.
- ii) Fellow de la American Mathematical Society.
- iii) McAlister Professor of Mathematics at Harvey Mudd College.
- iv) Honorary Professor of the National University of Colombia.

Professional career

- i) Harvey Mudd College: from June 2003 to date, Profesor de Matematics; from July 2004 to June 2008, Chair of the Departament of Matemáticas.
- ii) Universidad Complutense de Madrid, Spain: from February 2017 to August 2017, Distinguished Professor of Mathematics.
- iii) University of Texas at San Antonio: from August 1998 to June 2003, Professor of Matemáticas; from August 1998 to August 1999, Director of the Division of Mathematics, from Septiembre 2002 to June 2003, Chair of the Department de Applied Mathematics.
- iv) University of North Texas: from September 1990 to August 1998, Professor de Matematics.
- v) National Science Foundation (USA): from September 1989 to August 1991, Director of Applied Mathematics and Classical Analysis programs.
- vi) University of North Texas: from September 1985 to August 1990, Associate Professor of Mathematics.
- vii) Texas State University: from September 1982 to August 1985, Associate Professor of Mathematics.
- viii) University of Brasilia: January-February 1979, Visiting Professor.
- ix) Cinvestav (México): From September 1977 to August 1978, Lefschetz postdoc; from September 1978 to August 1980, Professor Asociado; from September 1980 to May 1983, Full Profesor.
- x) Universidad Pedagógica y Tecnológica de Colombia: from Agosto de 1973 to September 1974, Associate Professor.

Selected Publicaciones

1. (With J. Cossio and J. M. Neuberger) “*A sign-changing solution for a superlinear Dirichlet problem*”, Rocky Mountain Journal of Mathematics, Vol. 27, No. 4 (1997), pp. 1041-1053.
2. (With R. Shivaji), “*Non-negative solutions for a class of non-positone problems*,” Proc. Royal Soc. Edinburgh, 108A, (1988), pp. 291-302.
3. (With A.C. Lazer), “*Critical point theory and the number of solutions of a nonlinear Dirichlet problem*,” Annali di Mat. Pura et App. , Vol CXX (1979), pp. 113-137.
4. (With C. Maya and R. Shivaji) “*Nonlinear eigenvalue problems with semipositone structure*”, Nonlinear Differential Equations, Electron. J. Diff. Eqns., Conf. 05 (2000), pp. 33-49.
5. (With M. Clapp) “*The effect of the domain topology on the number of sign changing solutions of an elliptic equation with critical nonlinearity*”, Nonlinearity 16(2003), 579-590.
6. (With A. Kurepa), “*Infinitely many radially symmetric solutions to a superlinear Dirichlet problem in a ball*,” Proc. Amer. Math. Soc., Vol. 101, No. 1 (1987), pp. 57-64.
7. (With R. Shivaji) “*Non-negative solutions for a class of radially symmetric Non-positone problems*”, Proc. Amer. Math. Soc. , Vol. 106, No. 3 (1989), pp. 735-740.
8. (With M. Hassanpour and R. Shivaji) “*Uniqueness of non-negative solutions for a semipositone problem with concave nonlinearity*”, Comm. Partial Differential Equations 20 (1995), no. 11-12, 1927-1936.
9. (With J. Cossio and J. M. Neuberger) “*A Minmax principle, index of the critical point, and existence of sign changing solutions to elliptic boundary value problems*”, Electronic Journal of Differential Equations (<http://ejde.math.swt.edu>), Vol. 1998 (1998), No. 2, pp. 1-18.
10. (With L. Sankar and R. Shivaji), “*Uniqueness of nonnegative solutions for semipositone problems on exterior domains*”, J. Math. Anal. Appl. 394 (2012), no. 1, 432-437.

Service activities

- a) Founder and Editor of the Electronic Journal of Differential Equations, pioneering mathematics journal in virtual publication.
- b) Chair of the Human Rights Committee and the Committee on Book Donations of the la American Mathematical Society.
- c) Co-director de multiples tesis doctorales en la Universidad Nacional de Colombia sede Bogotá y en la Universidad Nacional de Colombia sede Medellín.

Doctoral dissertations director:

Mario Zuluaga (Centro de Investigación del I.P.N., Mexico, June 1982), Alexandra Kurepa (North Texas State University, Denton, July 1987), Sumalee Unsurangsie (North Texas State University, Denton, March 1988), Ismael Ali (University of North Texas, Denton, November 1990), Jorge Cossio (University of North Texas, Denton, November 1991), Sudhasree Gadam (University of North Texas, Denton, August 1992), Mehran Hassanpour (University of North Texas, Denton, June 1995), John

M. Neuberger (University of North Texas, Denton, June 1995), Jose F. Caicedo (Universidad Nacional de Colombia, Bogotá, December 1996), Marcel Finan (North Texas State University, Denton, July 1998), Hugo Aduén, (Universidad Nacional de Colombia, Medellín, March 2005), Carlos A. Velez (Universidad Nacional de Colombia, Medellín, July 2008), Rodrigo Duque (Universidad Nacional de Colombia, Bogotá, September 2011), Victor Ardila (Universidad Nacional de Colombia, Bogotá, May 2014), and Arturo Sanjuan (Universidad Nacional de Colombia, Bogotá, February 2015).