

CURRICULUM VITAE

First Name: MARIA-MAGDALENA

Last Name: BOUREANU

Date and Place of Birth: December 28, 1980, Craiova, Romania.

Professional Address: Department of Applied Mathematics, University of Craiova, Craiova, A.I.Cuza Street, No. 13, 200585, Romania.

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EDUCATION:

- 2005–2009: Ph.D degree in Mathematics, University of Craiova, Romania; Ph.D thesis: "*Topological Methods in the Study of Boundary Value Problems*", scientific advisor: prof. **Vicențiu Rădulescu**.
- 2004–2006: M.S. in Mathematical Analysis, "*Dynamical Systems and Problems of Evolution*", University of Craiova, Romania; dissertation: "*Variational Methods in the Study of Boundary Value Problems*", scientific advisor: prof. **Vicențiu Rădulescu**.
- 1999–2003: B.S. in Mathematics - Faculty of Mathematics and Computer Science, University of Craiova, Romania; graduation thesis: "*Harnack and Liouville type theorems*", scientific advisor: prof. **Vicențiu Rădulescu**.
- 1995–1999: "Carol I" National College, Craiova, laurea in Mathematics and Physics.

PROFESSIONAL EXPERIENCE AND ACTIVITIES:

- teaching assistant position at University of Craiova, Department of Applied Mathematics: October 2012 – present.
- researcher at University of Craiova, Department of Mathematics, September 2010 – September 2012.
- associated assistant professor position at University of Craiova:
 - at Department of Mathematics: October 2009 – present;
 - at Department of Applied Mathematics: October 2011 – July 2012.
- Ph.D student employed at the Faculty of Mathematics and Computer Sciences, University of Craiova (2005–2008).
- teacher position at "Carol I" National College – Craiova (2006).
- teacher position at G.S. "Dimitrie Filiașanu" – Filiași (2003–2005).

PRIZES AND SKILLS:

- five papers awarded by the Executive Unit for Financing Higher Education, Research Development and Innovation from Romania.
- GNAMPA junior research visit scholarship for four months (February-May 2011) at University of Milano Bicocca, Italy.
- BITDEFENDER postdoctoral scholarship for five months (February-June 2010) at the Institute of Mathematics "Simion Stoilow" of the Romanian Academy (IMAR), Bucharest, Romania.
- Erasmus-Socrates scholarship for three months (March 2003–May 2003) at University of Aveiro, Portugal.
- scholarships from University of Craiova during the entire period of studies (B.S., M.S. and Ph.D).
- leader of the students from the Faculty of Mathematics and Computer Sciences, and representative in the Senate of the University of Craiova (2000-2003).

MEMBERSHIPS:

- member of the *Society of Mathematical Sciences of Romania*;
- member of the *Center of Nonlinear Analysis and Applications*, Craiova, Romania.

RESEARCH GRANTS:

- member of the Romanian University of Craiova Grant 19C/27.01.2014;
Director: dr. *C. Vladimirescu*.
- member of the Romanian CNCS Grant PNII-ID-PCE-2011-3-0195;
Director: dr. *V. Rădulescu*.
- member of the Romanian CNCS – UEFISCDI Grant PN-II-RU-TE-2011-3-0223;
Director: dr. *A. Matei*.
- member of the Romanian CNCSIS Grant PNII-55/2008;
Director: dr. *V. Rădulescu*.
- member of the Romanian CNCSIS Grant PNII-79/2007;
Director: dr. *V. Rădulescu*.

COURSES AND SCHOOLS ATTENDED:

- "*5th Women in Mathematics Summer School on Mathematical Theories towards Environmental Models*", International Centre for Theoretical Physics, Trieste, Italy, May 27–June 1 2013.
- "*Topics in Nonlinear Parabolic Equations*", Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy, June 24–29 2012.
- "*New trends in nonlinear PDEs*", Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy, June 17–22 2012.
- "*Spring School in Nonlinear Partial Differential Equations*", Université Libre de Bruxelles, Belgium, May 30 – June 6 2012, with participation at the associated miniworkshop with the communication entitled "Existence and multiplicity results for Neumann problems with variable exponents".
- "*Calculus of Variations and Applications*", CIRM – Luminy, Marseille, France, July 11–16, 2011.
- "*Three days in PDEs*", University of Roma Tor Vergata, Italy, April 6–8, 2011.
- "*Harmonic Analysis and Related Topics (HART)*", University of Milano Bicocca, Italy, February 21–25, 2011.
- The classes "*Elliptic Equations*" given by prof. *S. Terracini* and prof. *G. Verzini* at University of Milano Bicocca between 15.02.2011 and 12.04.2011.

- The advanced courses "The restricted three body problem" and "Introduction to KAM theory" held by prof. *R.Ortega*, respectively *J.Féjóz*, at University of Milano Bicocca, Italy, February 7–9, 2011.
- Second Summer School on Analysis "Spectral Theory and PDEs", Leibniz Universitat Hannover, Germany, September 2010, with participation at the poster session with the poster "In the love story between two Sobolev spaces, an elliptic problem appears".
- Summer Course in Mathematics organized by Scuola Matematica Interuniversitaria at the Palazzone of Cortona on "Partial Differential Equations", Italy, August 2010.
- The courses "Regularity of Solutions of Second Order Elliptic Equations and Applications to Dirichlet Problem" (prof. *L. Veron*) and "Fine Properties of Functions" (prof. *P. Mironescu*) held at the summer school organized by IMAR Bucharest, Romania, 2005.

PUBLICATIONS:

- **M.M. Boureau, A. Matei, M. Sofonea**, Nonlinear problems with $p(\cdot)$ -growth conditions and applications to antiplane contact models, *Advanced Nonlinear Studies*, **14** (2014), 295–313.
- **M.M. Boureau, C. Udrea, D.N. Udrea**, Anisotropic problems with variable exponents and constant Dirichlet condition, *Electron. J. Diff. Equ.*, **2013** (2013), no. 220, 1–13.
- **M.M. Boureau, B. Noris, S. Terracini**, Sub and supersolutions, invariant cones and multiplicity results for p -Laplace equations, *Contemporary Mathematics – Recent Trends in Nonlinear Partial Differential Equations II: Stationary Problems*, **595** (2013), 91–119.
- **M.M. Boureau, D.N. Udrea**, Existence and multiplicity results for elliptic problems with $p(\cdot)$ - growth conditions, *Nonlinear Anal. Real World Applications*, **14** (2013) 1829–1844, doi:10.1016/j.nonrwa.2012.12.001.
- **M.M. Boureau**, Remarks on Neumann boundary value problems with variable exponents, *Bulletin of the Transilvania University of Braşov – Series III: Mathematics, Informatics, Physics*, **5(54)** (2012), 55–66.
- **M.M. Boureau, V. Rădulescu**, Anisotropic Neumann problems in Sobolev spaces with variable exponent, *Nonlinear Anal. TMA*, **75** (2012), 4471–4482.

- **M.M. Boureanu, F. Preda**, Infinitely many solutions for elliptic problems with variable exponent and nonlinear boundary conditions, *Nonl. Diff. Eq. and Appl. (NoDEA)*, **19** (2012), 235–251.
- **M.M. Boureanu, A. Matei, M. Sofonea**, Analysis of a contact problem for electro-elastic-visco-plastic materials, *Communications on Pure and Applied Analysis*, **11** (2012), 1185–1203.
- **M.M. Boureanu**, Infinitely many solutions for a class of degenerate anisotropic elliptic problems with variable exponent, *Taiwanese Journal of Mathematics*, **15** (2011), 2291–2310.
- **M.M. Boureanu**, The Mountain-Pass Theorem and modern applications, *Proc. Intern. Stud. Conf. on Pure and Appl. Math., Ed. Univ. A.I. Cuza, Iasi*, 2011, 29–40.
- **M.M. Boureanu, P. Pucci, V. Rădulescu**, Multiplicity of solutions for a class of anisotropic elliptic equations with variable exponent, *Complex Variables and Elliptic Equations (special issue: Sobolev Spaces with Variable Exponent and Related Elliptic Problems: Theory and Applications)*, **56** (2011), 755–767.
- **M.M. Boureanu**, Critical point methods in degenerate anisotropic problems with variable exponent, *Studia Universitatis Babeş-Bolyai Mathematica (the special issue on Critical Points: Theory and Applications)*, **LV** (2010), no. 4, 27–39.
- **M.M. Boureanu**, Existence of solutions for anisotropic quasilinear elliptic equations with variable exponent, *Advances in Pure and Applied Mathematics*, **1** (2010), 387–411.
- **M.M. Boureanu, A. Matei**, Weak solutions for antiplane models involving elastic materials with degeneracies, *Zeitschrift für Angewandte Mathematik und Physik (ZAMP)*, **61** (2010), 73–85.
- **M.M. Boureanu**, Uniqueness of singular radial solutions for a class of quasilinear problems, *Bull. Belg. Math. Soc. Simon Stevin*, **16** (2009), 665–685.
- **M.M. Boureanu**, On the existence and nonexistence of positive entire large solutions for semilinear elliptic equations, *An. Şt. Univ. Ovidius Constanţa*, **17** (2009), 23–36.
- **M.M. Boureanu**, Entire large solutions for logistic-type equations, *Annals of the University of Craiova, Math. Comp. Sci. Ser.*, **35** (2008), 32–40.
- **M.M. Boureanu, M. Mihăilescu**, Existence and multiplicity of solutions for a Neumann problem involving variable exponent growth conditions, *Glasgow Math. J.*, **50** (2008), 565–574.
- **M.M. Boureanu**, Existence of weak nontrivial solutions for a class of nonhomogeneous boundary value problems, *Proc. Nat. Session of Stud. Scientific Comm., Iasi*, 2007, 39–46.

- **M.M. Boureau**, Fraternization in ... Mathematics, *Proc. Intern. Conf. of Young Scientists, affiliated to CASC 2006*, Kisinev, Moldovian Republic, 2006, 9–15.
- **M.M. Boureau**, Existence of solutions for an elliptic equation involving the $p(x)$ -Laplace operator, *Electron. J. Diff. Eqns.*, **2006** (2006), no. 97, 1–10.

CONFERENCES AND WORKSHOPS:

- *The 12th French-Romanian Colloquy of Applied Mathematics*, Lyon, France, August 24-30, 2014, participation with the communication entitled "On some applications to antiplane contact models of the variable exponent problems".
- *The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications*, Madrid, Spain, July 07-11 2014, participation with the communication entitled "Variable exponent problems involving generalized operators", in the special session "Variational methods for discrete and continuous boundary value problems (with applications)".
- *The 8th European Conference on Elliptic and Parabolic Problems*, Gaeta, Italy, May 26-30 2014, participation with the communication entitled "On some elliptic problems with variable exponents".
- *Workshop on Dispersive PDE's: Models and Dynamics*, Pisa, Italy, September 18-20 2013.
- *8th Workshop on Control of Distributed Parameter Systems*, Craiova, Romania, July 1-5 2013 (local organizer).
- *Eleventh French-Romanian Colloquy of Applied Mathematics*, Bucharest, Romania, August 24-30, 2012, participation with the communication entitled "Connections between Neumann problems with variable exponents".
- *The Seventh Congress of Romanian Mathematicians*, Braşov, Romania, June 29 – July 5, 2011, participation with the communication entitled "On a class of nonlinear stationary problems with Neumann boundary condition".
- *A Day in Nonlinear Analysis ("Una Giornata Nonlineare")*, University of Turin, Italy, February 11, 2011.
- *Exploratory Workshop on Current Research Themes in Applied Mathematics, September 2010, Bucharest, Romania*.
- *Workshop on Asymptotic Analysis and Stochastic Methods for Heterogeneous Media, June 2010, Alba-Iulia, Romania*, participation with the communication entitled "Multiplicity of weak solutions for a degenerate anisotropic elliptic problem with variable exponent".

- *International Conference on Mathematics and IT: Research and Education (MITRE 2008), October 2008, Kisinev, Moldovian Republic*, participation with the communication entitled "Positive entire large solutions for semilinear elliptic equations".
- *National Session of Student Scientific Communications "Alexandru Myller", July 2008, Iasi, Romania*, participation with the communication entitled "Existence and uniqueness of solutions for a class of quasilinear elliptic problems".
- *National Session of Student Scientific Communications, July-2007, Iasi, Romania*, participation with the communication entitled "Existence of weak nontrivial solutions for a class of nonhomogeneous boundary value problems".
- *CERCMS International Conference of Young Scientist affiliated to the International Conference "Computer Algebra in Scientific Computing-2006", October 2006, Kisinev, Moldovian Republic*, participation with the communication entitled "Fraternization in ... Mathematics".
- *National Session of Student Scientific Communications, July 2006, Iasi, Romania*, participation with the communication entitled "Existence of solutions for an elliptic problem involving the $p(x)$ – Laplacean".

INVITED TALKS:

- "On some nonlinear problems involving variable exponents", University of Nice "Sophia Antipolis", France, January 2013 (<http://www-math.unice.fr/~eaubry/seminar.php>).
- "Weak solutions for anisotropic elliptic problems with variable exponent", University of Milano Bicocca, Italy, March 2011.
- The cycle of talks "Boundary value problems for the $p(x)$ -Laplace operator", Potential Theory Seminar, organized by Institute of Mathematics of the Romanian Academy (IMAR) jointly with University of Bucharest, Romania, March 2010.

RESEARCH VISITS:

- University of Nice "Sophia Antipolis", France, January 20–27, 2013.
- University of Milano Bicocca, Italy, May 2–11, 2012.
- University of Milano Bicocca, Italy, January 31–May 30, 2011.
- University of Perpignan, France, November 11–21, 2010.

REFEREE:

- Abstract and Applied Analysis;
- Advances in Nonlinear Analysis;
- Annals of the University of Craiova - Mathematics and Computer Science Series;
- Boundary Value Problems;
- Collectanea Mathematica;
- Complex Variables and Elliptic Equations;
- Electronic Journal of Differential Equations;
- FILOMAT (published by Faculty of Science and Mathematics University of Nis SERBIA);
- Journal of Function Spaces and Applications;
- Journal of Inequalities and Applications;
- Journal of Mathematical Analysis and Applications;
- Mathematical Modelling and Analysis;
- Nonlinear Analysis: Theory, Methods and Applications;
- Nonlinear Analysis: Real World Applications.