Mihai Mihăilescu

Contact information

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Education

Aug. 4 - Nov. 26, 2012	**Postdoctoral Fellow** at the University of Sydney, Australia.
Jul. 24, 2012	**Habilitation in Mathematics** at IMAR, Romania.
Oct. 29, 2010	**Ph.D.** in Applied Mathematics at Central European University, Budapest, Hungary.
Jan. 15, 2007	**Ph.D.** in Mathematics at the University of Craiova, Romania.
Jul. 2003	**M.Sc.** Dynamic Systems and Evolution Equations, at the University of Craiova.
Jun. 2001	**B.Sc.** in Mathematics at the University of Craiova.
1996-1997	**Freshman** at *L'Institut National Des Sciences Appliquées* (INSA) of Lyon, France.
Jun. 1996	**High School Graduate** at *Nicolae Bălcescu High School* (at present, *Carol I National College*) of Craiova, Romania.

Employment

• 03.01.2022 - present *Scientific Researcher I* (1/2 part time) at "Gheorghe Mihoc - Caius Iacob" Institute of Mathematical Statistics and Applied Mathematics (ISMMA)

• 01.03.2015 - present *Professor* at the Department of Mathematics of the University of Craiova.

• 01.10.2012 - 28.02.2015 *Associate Professor* at the Department of Mathematics of the University of Craiova.

• 01.03.2007 - 30.09.2012 *Assistant Professor* at the Department of Mathematics of the University of Craiova.

• 01.10.2003 - 28.02.2007 *Junior Assistant Professor* at the Department of Mathematics of the University of Craiova.

Scientific grants

- *Member* of the research project: *New approaches in functional inequalities and evolution equations* (CNCS-UEFISCDI, project number PN-III-P1-1.1-TE-2016-2233), 10 October 2018-9 October 2020 (project director: Cristian Cazacu; host institution: University of Bucharest).
- *Director* of the research project: *Typical and Nontypical Eigenvalue Problems for Some Classes of Differential Operators* (CNCS-UEFISCDI, project number PN-III-P4-ID-PCE-2016-0035), 12 July 2017-31 December 2019 (host institution: IMAR).
- *Member* of the research project: *Analysis of Schrodinger Equations* (CNCS-UEFISCDI, project number PN-II-RU-TE- 2014-4-0007), 1 October 2015-1 October 2017 (project director: Ioan-Liviu Ignat; host institution: IMAR; I became a member of the team of this project starting with 21 of October 2016).
- *UBB Advanced Fellowship-Intern* financially supported by *Star-UBB Institute* from *Babeș-Bolyai University*, no. CNFIS-FDI-2016-0056, 15 November 2016-15 December 2016 (host institution: Babeș-Bolyai University).
- *Director* of the research project: *Variable Exponent Analysis: Partial Differential Equations and Calculus of Variations* (CNCS-UEFISCDI, project number PN-II-ID-PCE-2012-4-0021), 02 September 2013-30 September 2016 (host institution: IMAR).
- *Director* **G**o8 European Fellowship (a fellowship financially supported by Go8 Australian Universities) at the *School of Mathematics and Statistics* from the *University of Sydney* (Australia).
- *Director* of the research project: *Probleme neliniare modelate de operatori diferentiali neomogeni* (CNCSIS-UEFISCSU, project number PN II-RU PD-117/2010), 28 July 2010-28 July 2012 (host institution: University of Craiova).
- *Member* of the research project: *Analysis, Control and Numerical Approximations of Partial Differential Equations* (CNCSIS-UEFISCSU, project number PN-II-ID-PCE-2011-3-0075), 1 October 2011-1 October 2014 (project director: Ioan-Liviu Ignat; host institution: IMAR).
- *Member* of the research project: *Proprietati calitative ale ecuatilor cu derivate partiale si ale aproximarilor lor numerice* (CNCSIS PNII TE-4/2010), 28 July 2010-28 July 2013 (project director: Ioan-Liviu Ignat; host institution: IMAR).
- *Member* of the research project: *Procese Neliniare Degenerate si Singulare* (CNCSIS PNII 78/2007), 1 October 2007-30 September 2010 (project director: Vicențiu Rădulescu; host institution: University of Craiova).

Awards

- *"Simion Stoilow" Prize of the Romanian Academy for 2010.*

Scientific publications (selection)

- M. Mihăilescu and V. Rădulescu: A multiplicity result for a nonlinear degenerate problem arising in the theory of electrorheological fluids, *Proc. Roy. Soc. London Ser. A* **462** (2006), 2625-2641. (correction: *Proc. Roy. Soc. London Ser. A* **467** (2011), 3033-3034.)
- M. Mihăilescu and V. Rădulescu: On a nonhomogeneous quasilinear eigenvalue problem in Sobolev spaces with variable exponent, *Proceedings of the American Mathematical Society* **135** (2007), 2929-2937.
- M. Mihăilescu, V. Rădulescu, and D. Repovš: On a non-homogeneous eigenvalue problem involving a potential: an Orlicz-Sobolev space setting, *J. Math. Pures Appliquées (Journal de Liouville)* **93** (2010), 132-148.

- M. Mihăilescu: An eigenvalue problem possessing a continuous family of eigenvalues plus an isolated eigenvalue, *Communications on Pure and Applied Analysis* **10** (2011), 701-708.
- M. Bocea and M. Mihăilescu: Eigenvalue problems in Orlicz-Sobolev spaces for rapidly growing operators in divergence form, *J. Differential Eqnuations* **256** (2014), 640-657.
- M. Bocea and M. Mihăilescu: On the continuity of the Luxemburg norm of the gradient in $L^{p(\cdot)}$ with respect to $p(\cdot)$, *Proc. Amer. Math. Soc.* **142** (2014), 507-517.
- M. Mihăilescu: Classification of isolated singularities for nonhomogeneous operators in divergence form, *Journal of Functional Analysis* **268** (2015), 2336-2355.
- M. Bocea and M. Mihăilescu: On the existence and uniqueness of exponentially harmonic maps and some related problems, *Israel Journal of Mathematics* **230** (2019), 795-812.
- M. Mihăilescu and J. D. Rossi: Monotonicity with respect to p of the First Nontrivial Eigenvalue of the p-Laplacian with Homogeneous Neumann Boundary Conditions, *Communications on Pure and Applied Analysis* **19** (2020), 4363-4371.
- M. Bocea and M. Mihăilescu: On the Monotonicity of the Principal Frequency of the p-Laplacian, *Advances in Calculus of Variations* **14** (2021), 147-152.
- M. Mihăilescu: The Spectrum of the Mean Curvature Operator, *Proceedings of the Royal Society of Edinburgh Section A: Mathematics* **151** (2021), 451-463.
- M. Fărcășeanu and M. Mihăilescu: On the Monotonicity of the Best Constant of Morrey's Inequality in Convex Domains, *Proceedings of the American Mathematical Society* **150** (2022), 651-660.
- M. Mihăilescu: Monotonicity Properties for the Variational Dirichlet Eigenvalues of the p-Laplace Operator, *Journal of Differential Equations* **335** (2022), 103-119.
- C. Enache, M. Mihăilescu, and D. Stancu-Dumitru: The Monotonicity of the p-Torsional Rigidity in Convex Domains, *Mathematische Zeitschrift* **302** (2022), 419-431.
- M. Mihăilescu and D. Stancu-Dumitru: Comparing the first eigenvalues of the p-Laplace operator on distinct bounded and convex domains, to appear in *Tohoku Mathematical Journal*.

Citations

- According to the *Web of Science* database on 11 of November 2025 I have 2001 citations (without self-citations) in ISI journals and my h-index is equal to 23.

Editorial activities

- Member of the editorial board of *Mathematics*;
- Member of the editorial board of *Contributions to Mathematics*;
- Member of the editorial board of *Electronic Journal of Mathematics*;
- Former member of the editorial board of *Abstract and Applied Analysis* (2012-2019).

PhD Students

- Maria Fărcășeanu (2018), **URL:** https://sites.google.com/site/mariafarcaseanu/home;
- Andrei Grecu (2021), **URL:** https://sites.google.com/view/andreigrecu-ucv/home;
- Anisia Teca (in progress), **URL:** https://sites.google.com/view/tecaanisia/home.

Talks (selection)

- **Variable Exponent Analysis**, June 28 - July 2, 2010, University of Oulu, Finland (title of the talk: Γ-*convergence for some power-law functionals involving nonstandard growth conditions*).

- **Workshop for Young Researchers in Mathematics**, May 12-13, 2011, "Ovidius" University of Constanța, Constanța, Romania (title of the talk: *Mosco convergence for some power law functionals involving variable exponents*).
- **The Seventh Congress of Romanian Mathematicians**, June 29 - July 5, 2011, "Transilvania" University of Brașov, Brașov, Romania (title of the talk: *Mosco convergence for some power law functionals involving variable exponents*).
- **AMS Western Section Meeting**, October 22-23, 2011, University of Utah, Salt Lake City, Utah, USA (title of the talk: *A maximum principle connected with eigenvalue problems involving variable exponents*).
- **Seminar of the PDE's Research Group from Basque Center of Applied Mathematics, Bilbao, Spain**, February 14, 2012, (title of the talk: *Remarks on the first eigenvalue of the $p(x)$-Laplace operator*).
- **PDE Seminar of the School of Mathematics and Statistics from the University of Sydney**, September 3, 2012 (title of the talk: *PDE's involving variable exponents*).
- **Australian Mathematical Society 56-th Annual Meeting**, September 24 - 27, 2012, University of Ballarat, Ballarat, Australia (title of the talk: *Mosco convergence for some power law functionals involving variable exponent growth conditions*).
- **PDE/Analysis seminar of the Mathematical Sciences Institute, College of Physical & Mathematical Sciences from the Australian National University**, November 13, 2012, (title of the talk: *Classification of isolated singularities for equations involving the Finsler-Laplace operator*).
- **Pure Maths Seminar of the School of Mathematics and Statistics from the University of New South Wales**, November 20, 2012, (title of the talk: *Classification of isolated singularities for equations involving the Finsler-Laplace operator*).
- **Joint International Meeting of the AMS and the Romanian Mathematical Society**, June 27-30, 2013, 1 Decembrie 1918 University, Alba Iulia, Romania (title of the talk: *PDE's involving a variable exponent Grushin-type operator*).
- **PDE Seminar of the School of Mathematics and Statistics from the University of Sydney**, September 26, 2013, (title of the talk: *The asymptotic behavior of some power-law functionals in Sobolev spaces with variable exponents*).
- **Australian Mathematical Society 57-th Annual Meeting**, September 30 - October 03, 2013, University of Sydney, Sydney, Australia (title of the talk: *Eigenvalue problems in Orlicz-Sobolev spaces for rapidly growing operators in divergence form*).
- **The Eighth Congress of Romanian Mathematicians**, June 26 - July 1, 2015, "A. I. Cuza" University of Iași, Iași, Romania (title of the talk: *On the asymptotic behavior of some classes of nonlinear eigenvalue problems involving the p-Laplacian*).
- **AMS Central Fall Sectional Meeting - Special Session on Nonlinear PDEs and Calculus of Variations**, October 2 - 4, 2015, Loyola University Chicago, Chicago, IL, USA (title of the talk: *Classification of isolated singularities for inhomogeneous operators in divergence form*).
- **Le 13eme Colloque Franco-Roumain en Mathematiques Appliquees - Special Session on Analyse et Controle des EDP**, August 25-29, 2016, Universitatea A. I. Cuza din Iași, Iași, Romania (title of the talk: *Classification of isolated singularities for inhomogeneous operators in divergence form*).
- **Seminar of the Department of Mathematics and Statistics**, March 14, 2017, The College of Arts and Sciences, American University of Sharjah, United Arab Emirates (title of the talk: *Inhomogeneous torsional creep problems*).
- **Nonlinear Difference and Differential Equations and their Applications NODDEA'2017** ,

October 26-28, 2017, University of Ruse, Bulgaria (title of the talk: *Minimization Problems for Inhomogeneous Rayleigh Quotients*).

- **Sextas Jornadas de Análisis Matemático en Alicante**, January 24-26, 2018, University of Alicante, Spain (title of the talk: *Minimization Problems for Inhomogeneous Rayleigh Quotients*).
- **Workshop on Differential Equations**, April 4-6, 2018, Central European University, Budapest, Hungary (title of the talk: *Problems involving rapidly growing operators in divergence form*).
- **Transitions de phase et équations non locales**, April 25-27, 2018, Institute of Mathematics of the Romanian Academy, Bucharest, Romania (title of the talk: *Deux problèmes variationnels liés aux opérateurs en forme divergence avec symbole à croissance rapide*).
- **14th Franco-Romanian Conference on Applied Mathematics**, August 27-31, 2018, University of Bordeaux, France (title of the talk: *Minimization Problems for Inhomogeneous Rayleigh Quotients*).
- **Italian-Romanian Colloquium on Differential Equations and Applications**, April 10-12, 2019, University of Udine, Italy (title of the talk: *The Monotonicity of the Principal Eigenvalue of the p-Laplace Operator and Related Problems*).
- **RomFin2019 and FSDONA2019**, June 10-15, 2019, University of Turku, Finland (title of the talk: *The Monotonicity of the Principal Eigenvalue of the p-Laplace Operator*).
- **The Ninth Congress of Romanian Mathematicians**, June 28 - July 3, 2019, University of Galaţi, Romania (title of the talk: *The Monotonicity of the Principal Eigenvalue of the p-Laplace Operator*).
- **Seminar of the Department of Mathematics and Statistics**, September 24, 2019, The College of Arts and Sciences, American University of Sharjah, United Arab Emirates (speaker: Mihai Mihailescu; title of the talk: *The Monotonicity of the Principal Eigenvalue of the p-Laplace Operator*).
- **Septimas Jornadas de Analisis Matematico**, January 15-17, 2020, University of Alicante, Spain (title of the talk: *The Monotonicity of the Principal Eigenvalue of the p-Laplace Operator*).
- **Monday's Nonstandard Seminar 2020/21**, March 1st, 2021, online seminar (title of the talk: *A Monotonicity Property for the Principal Eigenvalue of the p-Laplace Operator*).
- **UAE Math Day 2023**, March 4, 2023, Zayed University, Dubai, UAE (title of the talk: *On the Monotonicity of the Best Constant of Morrey's Inequality in Convex Domains*).
- **Workshop on PDE's - Research in Pairs in Bucharest**, June 26-27, 2023, IMAR & Politehnica University of Bucharest, Romania (title of the talk: *Monotonicity Properties of the p-Torsional Rigidity in Convex Domains*).
- **The Tenth Congress of Romanian Mathematicians**, June 30 - July 5, 2023, University of Piteşti, Romania (title of the talk: *Monotonicity Properties of the p-Torsional Rigidity in Convex Domains*).
- **16th Franco-Romanian Colloquium**, August 26-30, 2024, National University of Science and Technology Politehnica Bucharest, Romania (title of the talk: *On a family of PDEs related to the principal frequency of the p-Laplacian and the p-torsion problem*).
- **UAE Math Day 2025**, April 12, 2025, University of Sharjah, UAE (title of the talk: *Minimization Problems Interpolating between the p-Torsion Problem and the Principal Frequency of the p-Laplacian*).
- **6th AUS Workshop on Analysis and Applications**, November 8, 2025, American University of Sharjah, UAE (title of the talk: *On a family of PDEs related to the principal frequency of the p-Laplacian and the p-torsion problem*).

Conferences organized

• **Special Session on Applied Analysis** at **AMS Western Section Meeting**, 22-23 Octombrie, 2011, University of Utah, Salt Lake City, Utah, USA (co-organized with Marian Bocea, Department of Mathematics and Statistics, Loyola University Chicago).

• **Special Session on Calculus of Variations and Partial Differential Equations** at **Joint International Meeting of the AMS and the Romanian Mathematical Society**, June 27-30, 2013, 1 Decembrie 1918 University, Alba Iulia, Romania (co-organized with Marian Bocea - Loyola University Chicago; Liviu Ignat - Institute of Mathematics of the Romanian Academy; Daniel Onofrei - University of Houston).

• **Special Session on Analysis** at **Le 12ème Colloque Franco-Roumain en Mathématiques Appliquées**, August 25-30, 2014, University of Lyon, Lyon, France (co-organized with Daniel Beltiță - Institute of Mathematics of the Romanian Academy; Emmanuel Russ - Joseph Fourier University, Grenoble).

• **Happy PDE's Days**, December 8-9, 2016, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania (co-organized with Liviu Ignat - "Simion Stoilow" Institute of Mathematics of the Romanian Academy).

• **Workshop on Pure and Applied Analysis**, October 21, 2017, University of Craiova, Craiova, Romania (co-organized with Cristian Vladimirescu - University of Craiova).

• **Atelier de Travail en Equations aux Dérivées Partielles**, December 7-8, 2017, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania (co-organized with Liviu Ignat - "Simion Stoilow" Institute of Mathematics of the Romanian Academy).

• **Atelier de Travail en Equations aux Dérivées Partielles**, December 13-14, 2018, "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, Romania (co-organized with Cristian Cazacu - University of Bucharest; Andreea Grecu - "Simion Stoilow" Institute of Mathematics of the Romanian Academy; Liviu Ignat - "Simion Stoilow" Institute of Mathematics of the Romanian Academy).

Service

• 2020 - present *Member of the Mathematics commission CNATDCU of the Ministry of Education*.

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Mihai Mihăilescu