CURRICULUM VITAE

Maria MALIN

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Academic experience

- **October 1, 2022 - : Associate Professor** (**Lector**) at the University of Craiova, Craiova, Romania (Teaching activities - Courses: Ordinary Differential Equations 2; Dynamical Systems; Genetic Algorithms; The Methodical Aspects of Teaching Mathematical Analysis; Seminars: Analysis 2; Partial Differential Equations; Functional Analysis; Scientific Calculus; Optimization Techniques).

- **October 1, 2017 - September 30, 2022**: **Assistant Professor** at the University of Craiova, Craiova, Romania (Teaching activities - Seminars: Analysis 1; Analysis 2; Ordinary Differential Equations; Partial Differential Equations; Functional Analysis; Scientific Calculus).

- **September 1, 2015 – August 31, 2017**: **Teaching Assistant** at City University of Hong Kong (Tutorials: Calculus and Basic Linear Algebra; Differential Equations).

Fellowships

- **Research Associate** at City University of Hong Kong (February 1, 2023 – March 31, 2023).

- **Research Fellowship** at City University of Hong Kong (January 31, 2020 - February 29, 2020)

- **Postdoctoral Fellowship** at City University of Hong Kong (January 7, 2019 - June 29, 2019)

- **Hong Kong Ph.D. Fellowship** at City University of Hong Kong, Hong Kong (September 1, 2014 – August 31, 2017).

- **Chow Yei Ching School of Graduate Studies Entrance Scholarship** at City University of Hong Kong, Hong Kong (September 1, 2014 - August 31, 2015).

Education

- **July 17, 2017**: **Ph.D.** in Mathematics, City University of Hong Kong, Hong Kong.
  Title of Thesis: ***Some new results about J.L. Lions lemma and Korn's inequalities on surfaces.***
  Thesis advisor: **Prof. Philippe G. Ciarlet**.
  Examiners**:** Prof. Tong Yang (City University of Hong Kong), Prof. Jonathan Wylie (City University of Hong Kong), Prof. Li Kaitai (Xi'an Jiaotong University, Xi'an).

- **April 20, 2017**: **Ph.D.** in Mathematics, University of Craiova, Romania.
  Title of Thesis: ***Qualitative analysis of some continuous and discrete models.***
  Thesis advisor: **Prof. Vicenţiu Rădulescu.**
  Examiners: Prof. Lucian Beznea (IMAR-Bucharest), Prof. Giovanni Molica Bisci (Universita degli Studi Mediterranea di Reggio Calabria), Prof. Sorin Micu (University of Craiova).

- **June 2013**: **M.Sc.** in Applied Mathematics, University of Craiova, Romania.

- **June 2011**: **B.Sc.** in Mathematics, University of Craiova, Romania.

Research grants

- **Member of the MCID research project:** Nonlinear Differential Systems in Applied Sciences, project number: PNRR-III-C9-2022-I8 (director: Prof. Vicentiu Radulescu).

- **Project Coordinator of the mobility research grant**: CNCS-UEFISCDI, PN-III-P1-1.1-MC-2018-1374.

- **Member of the research grant:** Mathematical Analysis of nonlinear mechanics systems , CNCS- UEFISCDI, PN-III-P1-1.1-TE-2016-2314 (director: Prof. Ionel Dumitrel Ghiba).

- **Member of the research grant:** Controllability and Optimizations Problems (COP), CNCS- UEFISCDI, PN-II-RU-TE-2014-4-1109 (director: Prof Ionel Roventa).

Publications

1) **M. Malin, C. Mardare,** *Recovery and continuity of surfaces with assigned director field,* **Mathematics and Mechanics of Solids** (Special issue in honor of P.G. Ciarlet), 2025, accepted.

2) **M. Malin, G. M. Lachescu, I. Rovenṭa,** *On the barycenter for discrete Steffensen Popoviciu measures on global NPC spaces,* **Aequationes mathematicae**, 2025, accepted.

3) **M. Malin, G. M. Lachescu, I. Rovenṭa,** New Versions of Uniformly Convex Functions via Quadratic Complete Homogeneous Symmetric Polynomials, *Mediterranean Journal of Mathematics* 20 (5) (2023), 1-20.

4) **M. Malin, C. Mardare,** *Estimates for the constant in two nonlinear Korn inequalities,* **Mathematics and Mechanics of Solids**, Volume 26, Issue 4 (2021), pp. 471-497.

5) **M. Malin, C. Mardare,** *A nonlinear Korn inequality on a surface with an explicit estimate of the constant,* **Comptes Rendus Mathématiques**, Volume 359 (2021), no. 2, pp. 105-111.

6) **P. G. Ciarlet, M. Malin, C. Mardare,** *Continuity in Fréchet topologies of a surface as a function of its fundamental forms*, **Journal de Mathématiques Pures et Appliquées,** Volume 142, Issue 11 (2020), pp. 243-265.

7) **M. Malin, C. Mardare,** *A nonlinear Korn inequality in R^n with an explicitly bounded constant,* **Comptes Rendus Mathématiques**, Volume 358 (2020), no. 5, pp. 621-626.

8) **M. Malin, I. Rovenṭa,** *Ky Fan's inequality in the context of relative convexity,* **Journal of Nonlinear and Convex Analysis**, Volume 21, Issue 3 (2020), pp. 629-637.

9) **P. G. Ciarlet, M. Malin, C. Mardare,** *New estimates of the distance between two surfaces in terms of the distance between their fundamental forms*, **Analysis and Applications,** Volume 17, Issue 3 (2019), pp. 363-392.

10) **P. G. Ciarlet, M. Malin, C. Mardare,** *Continuity of a surface in Fréchet spaces,* **C. R. Acad. Sci. Paris, Ser. I,** 357 (2019), pp. 917-921.

11) **M. Malin, I. Rovenṭa, M. Tudor,** *The Convergence of a Sequence of Iterated Polygons: A Discrete Combinatorial Analysis*, Difference Equations, Discrete Dynamical Systems and Applications, ICDEA 2017, **Springer Proceedings in Mathematics & Statistics**, Volume 287, Springer, Cham. (2019), 17 pages.

12) **M. Malin, C. Mardare,** *Nonlinear Korn inequalities on a hypersurface*, **Chinese Annals of Mathematics, Series B** (Special issue in honor of P.G. Ciarlet), Volume 39, Issue 3 (2018), pp. 513-534.

13) **P. G. Ciarlet, M. Malin, C. Mardare,** *On a vector version of a fundamental lemma of J.L. Lions,* **Chinese Annals of Mathematics, Series B,** Volume 39, Issue 1 (2018), pp. 33-46.

14) **M. Malin, C. Mardare,** *Nonlinear estimates for hypersurfaces in terms of their fundamental forms*, **C. R. Acad. Sci. Paris, Ser. I,** 355 (2017), pp. 1196-1200.

15) **P. G. Ciarlet, M. Malin, C. Mardare,** *New nonlinear estimates for surfaces in terms of their fundamental forms,* **C. R. Acad. Sci. Paris, Ser. I**, 355 (2017), pp. 226-231.

16) **M. Malin**, **V. Radulescu**, *Infinitely many solutions for a nonlinear difference equation with oscillatory nonlinearity,* **Ricerche di Matematica**, Springer, 65 (2016), pp.193-208.

17) **M. Malin**, **C. Udrea**, *Degenerate nonlinear elliptic equations with lack of compactness,* **Chinese Annals of Mathematics, Series B,** Volume 37, Issue 1 (2016), pp. 53-72.

18) **M. Malin**, *Multiple solutions for a class of oscillatory discrete problems*, **Advances in Nonlinear Analysis**, Vol. 4, Issue 3 (2015), pp. 221-233.

19) **M. Malin**, **I. Roventa**, *Some Remarks on Convex Network Flows for K-Spiders,* **Mathematical Problems in Engineering**, Vol. 2015, Article ID 710516, 6 pages, http://dx.doi.org/10.1155/2015/710516, ISSN: 1024-123X.

20) **M. Malin**, *Emden-Fowler problem for discrete operators with variable exponent*, **Electronic Journal of Differential Equations**, Vol. 2014, No. 55 (2014), pp. 1-13.

21) **M. Malin**, *Discrete Emden-Fowler problems driven by nonhomogeneous differential operators*, **Annals of the University of Craiova, Mathematics and Computer Science Series**, Vol. 41 (1), (2014), pp. 59-68.

Conferences

- *International Conference on Elliptic and Parabolic Problems*, 20-24 May 2024, Gaeta, Italy, participant.

- *8th Workshop on Partial Differential Equations, Optimal Desig and Numerics*, 16-30 Aug. 2019, Benasque, Spain, participant.

- *Atelier de travail en Théorie du potentiel et EDP non-linéaires, l'Institut de Mathématique „Simion Stoilow" de l'Académie Roumaine*, 22-23 Nov. 2018,

Bucharest, Romania; **invited talk**: Nouvelles majorations de la distance entre deux surfaces en fonction de la distance entre leurs formes fondamentales.

- *XIV-ème Colloque Franco-Roumain de Mathématiques Appliquées*, 27-31 Aug. 2018, Université de Bordeaux, France; **invited talk**: New estimates of the distance between two surfaces in terms of the distance between their fundamental forms.

- *23rd International Conference on Difference Equations and Applications*, 24-28 July 2017, Timisoara, Romania; **contributed talk**: New nonlinear estimates for surfaces in terms of their fundamental forms.

- *XIII-ème Colloque Franco-Roumain de Mathématiques Appliquées*, 25-29 Aug. 2016, Iasi, Romania; **contributed talk**: Nonlinear Korn inequalities on a surface: some new results.

- *International Conference on Applied Mathematics,* 30 May- 2 June 2016, City University of Hong Kong, Hong Kong, participant.

- *9th European Conference on Elliptic and Parabolic Problems*, 23-27 May 2016, Gaeta, Italy; **contributed talk**: Some new nonlinear Korn inequalities on a surface.

- *International Conference on Nonlinear Operators, Differential equations and Applications*, 14-17 July 2015, Cluj-Napoca, Romania; **contributed talk**: On a matrix version of a lemma of Jacques- Louis Lions.

- *8th Workshop on Control of Distributed Parameter Systems*, 1-5 July 2013, University of Craiova, Craiova, Romania, organizing committee.

- *International Summer School of Mathematics, Analytical and Computer Assisted Methods in Mathematical Models*, 1-15 Sept. 2013, University of Debrecen, Debrecen, organised under the ERASMUS Lifelong Learning Programme.

Visits and talks at university colloquiums

- Université Clermont Auvergne, Laboratoire de Mathématiques Blaise Pascal, Clermont-Ferrand, France, February 2018, **seminar talk**: *Nonlinear inequalities in differential geometry*.

- Xi'an Jiaotong University, Xi'an, China, November 2017, **seminar talk**: *Nonlinear Korn inequalities on a surface and shell theory*.

- Xi'an University of Technology, Xi'an, China, November 2017, **seminar talk**: *Inequalities of Korn's type on a surface and applications to shell theory*.

- City University of Hong Kong, Hong Kong, November 2017.

Editorial activities

- **Reviewer**: Mathematics and Mechanics of Solids, Acta Mathematicae Applicatae Sinica, Advances in Nonlinear Analysis, Boundary Value Problems, Quaestiones Mathematicae, The Journal of Analysis, Comptes Rendus Mathematique, etc.

- Member of the Editorial Board of Annals of the University of Craiova-Mathematics and Computer Science Series.

- Member of the Centre for Nonlinear Analysis and Its Applications from the University of Craiova, Romania.

Date: 01.10.2025