

CURRICULUM VITAE

Gabriela Marinoschi Member of the Romanian Academy

Actual position: Senior researcher I, Director, Gheorghe Mihoc-Caius Iacob Institute of Mathematical Statistics and Applied Mathematics of the Romanian Academy (ISMMA), Calea 13 Septembrie 13, 050711, Bucharest, Romania, Phone: +40 318 24 33; + 40 21 318 81 06; fax : +40 21 318 2439, E-mail: gabriela.marinoschi@acad.ro, gabriela.marinoschi@ismma.ro

Education: University of Bucharest, diploma in Mathematics, 1979; University of Bucharest, certificate of specialization in Fluid Mechanics, 1980; University of Bucharest, Ph. D. in Mathematics, 1989

Fields of interest: Nonlinear partial differential equations, Parabolic equations, Free boundary problems, Semigroup and variational methods, Optimal control, stabilization and inverse problems, applications of PDEs models in sciences.

Publications: 5 books, 14 invited chapters in peer-reviewed collective volumes, 116 papers published in peer reviewed journals, co-editor of 10 volumes.

Professional positions held:

- Mathematician, scientific researcher, scientific researcher II, Institute of Meteorology and Hydrology, Bucharest, 1980-1990
- Senior researcher II (May 1991-February1998), Senior researcher I (February1998-December 2001), Institute of Applied Mathematics of the Romanian Academy
- Senior researcher I (December 2001-present), Gheorghe Mihoc-Caius Iacob Institute of Statistical Mathematics and Applied Mathematics of the Romanian Academy (ISMMA)
- Director of ISMMA, March 2020-present

Positions abroad:

- NATO research fellowship: University of Athens, Greece April-June 1994
- Researcher, Forschungszentrum Jülich, Germany, September-October 1994
- Visiting professor, Center of Optimal Control, and Discrete Mathematics, Central China Normal University, November-December 2003, May-June 2004

Research visits:

- Forschungszentrum Jülich, Germany: July 1995, May 1997, November 1999, November 2000, October 2001
- Center of Atmosphere Physics and Climatology of the Academy of Athens, Greece: July 1996, August 1998, August 1999, September 2000
- Technical University of Athens: March 2000
- University of Trento, Department of Mathematics: April 2003, October 2003, April 2004, October 2004, April 2005, November 2005, March-April 2006, March 2007, October 2007, May 2008; October 2009, November 2011, November 2013, October 2014, October 2015, September 2016, May 2017, April-May 2018, December 2021, November 2022
- Institute for Analysis of Systems and Informatics, CNR, Rome, May 2014
- University of Pavia; May 2014, December 2014, March 2015, November 2015, April 2016, March 2018, May 2019, May 2023

Visiting professor:

- University of Bologna: July 2005, September 2006, April 2008, April 2009, June 2009, October 2009, April-May 2010, November 2010, May 2011, November 2011, October 2012, May, October 2013, September 2014, September 2016
- CIRM-Fondazione Bruno-Kessler Italy, November 2008, November 2012
- University of Bari: May-June 2013, May 2015

Ph.D. advisor: since 2004, (O.M. no. 4629/7.09.2004) with ISMMA between 2003-2013 and with the Simion Stoilow Institute of Mathematics between 2013-present. 5 defended thesis coordinated. Currently 2 Ph.D. thesis coordinated.

Editorial activity:

- Associate editor [Evolution Equations and Control Theory](#), AIMS, since 2022
- Topical Editor for Mathematics Proceedings of the Romanian Academy - Series A <https://acad.ro/proceedings.htm>, 2019-2022, member of editorial board, 2023-present

- Member of the editorial board of: [Mathematical Reports](#) since 2013, [Revue Roumaine de Mathématiques Pures et Appliquées](#) since 2013, [Journal of Numerical Analysis and Approximation Theory](#) since 2013.

Honors and awards:

- Full member of the Romanian Academy, since 2022 (corresponding member 2017)
- Spiru Haret Prize of the Romanian Academy in the domain of Mathematical Sciences, 1992.
- Cultural Distinction of the Romanian Academy, 2002

LIST OF PUBLICATIONS

A. Books

1. G. Marinoschi, Dual Variational Approach to Nonlinear Diffusion Equations, Series Progress in Nonlinear Differential Equations and Their Applications, Subseries in Control (PNLDE-SC) 102, Springer Nature, Birkäuser, 2023. (212 pages, [ISBN 978-3-031-24582-4](#))
2. A. Favini, G. Marinoschi, *Degenerate Nonlinear Diffusion Equations*, Lecture Notes in Mathematics 2049, Springer, Berlin, New York, 2012. (143 pages, [ISBN 978-3-642-28284-3](#) DOI [10.1007/978-3-642-28285-0](#))
3. G. Marinoschi, *Functional approach to nonlinear models of water flow in soils*, Mathematical Modelling Series: Theory and Applications, volume 21, Springer, 2006. (315 pages, [ISBN-10: 1-4020-4879-3](#))
4. G. Marinoschi, *Analysis and Control of Basic Problems in the Theory of Water Infiltration in Soils*, Hubei Science and Technology Press, Wuhan, 2004. (233 pages, [ISBN: 7-5352-3210-8](#))
5. G. Marinoschi, *Mathematical treatment of infiltration and dispersion problems*, Center of Optimal Control and Discrete Mathematics, Central China Normal University, Wuhan, 2003. (Lecture notes, 147 pages)

B. Articles or chapters in peer-reviewed collective volumes

1. S. Ion, G. Marinoschi, D. Marinescu, *Analytical and numerical approach to Richards' equation*. In: **Current topics in Continuum Mechanics** (Ed. L. Dragos), 103-140, Romanian Academy Publishing House, Bucharest, 2002. [ISBN: 973-27-0919-7](#)
2. G. Marinoschi, *Analytical method for solving an advection - diffusion problem in a n - layered medium*. In: **Mathematical Modelling of Environmental Problems** (Eds. G. Marinoschi, S. Ion), 57-82, Romanian Academy Publishing House, 2002. [ISBN: 973-27-0934-0](#)
3. G. Marinoschi, A. Morega, *A study of the evolution of moisture discontinuity in a stratified porous medium*, In: **Mathematical Modelling of Environmental and Life Sciences Problems** (Eds. S. Ion, G. Marinoschi, C. Popa), Romanian Academy Publishing House, pp. 69-80, 2004. [ISBN: 973-27-1113-2](#)
4. G. Marinoschi, *On a nonlinear boundary value problem related to infiltration in unsaturated media*, In: **New Trends in Continuum Mechanics** (Ed. M. Suliciu, Proceedings of the International Conference 8-12 September, 2003, Constanta), Theta Publishing, 175-184, 2005. [ISBN: 9738543258](#)
5. G. Marinoschi, *Well-posedness for a non-autonomous model of fast diffusion*, In: **Applied Analysis and Differential Equations** (Eds. Ovidiu Carja, Ioan I. Vrabie), 199- 216, World Sci. Publ., Hackensack, NJ, 2007. [ISBN 978-981-270-594-5](#)
6. G. Marinoschi, *Mathematical models of diffusion in nonhomogeneous porous media*, In: **Topics in Applied mathematics and Mathematical Physics** (Eds. C.P. Grünfeld, S. Ion, G. Marinoschi), 243-277, Romanian Academy Publishing House, Bucharest, 2008. [ISBN: 978-973-27-1719-6](#)
7. G. Marinoschi, *Nonlinear diffusion equations with discontinuous coefficients in porous media*, In: **Progress in Nonlinear Analysis Research** (Ed. Erik T. Hoffmann), 209-242, Nova Science Publishers, New York, 2008. [Hard-copy ISBN: 978-1-60456-359-7](#); 2009 [On-line ISBN: 978-1-60741-399-8](#)
8. G. Marinoschi, *Identification of a singular coefficient in a parabolic degenerate equation with transport*, In: **Alexandru Myller Mathematical Seminar Centennial Conference**, Iasi (Romania), 21-26 June 2010 (Eds. V. Barbu, O. Carja), AIP Conference Proceedings volume 1329, 191-205, 2011. [ISBN: 978-0-7354-0884-5](#) [DOI: 10.1063/1.3559170](#)

9. A. Favini, A. Lorenzi, G. Marinoschi, H. Tanabe, *Perturbation methods and identification problems for degenerate evolution systems*, In: **Advances in Mathematics, Invited Contributions at the Seventh Congress of Romanian Mathematicians, Brasov, 2011** (Eds. L. Beznea, V. Brinzanescu, M. Iosifescu, G. Marinoschi, R. Purice, D. Timotin), Publishing House of the Romanian Academy, 145-156, 2013. [ISBN:978-973-27-2316-6](#)
10. G. Fragnelli, G. Marinoschi, R.M. Mininni, S. Romanelli, *A control approach for an identification problem associated to a strongly degenerate parabolic system with interior degeneracy*, In: **New Prospects in Direct, Inverse and Control Problems for Evolution Equations**, (Eds. A. Favini et al.), Springer INdAM Series, vol. 10, 121-139, 2014. [ISBN 978-3-319-11405-7](#)
11. G. Marinoschi, *A note on the feedback stabilization of a Cahn-Hilliard type system with a singular logarithmic potential*, In: **Solvability, Regularity, Optimal Control of Boundary Value Problems for PDEs** (Eds. A. Favini, P. Colli, E. Rocca, G. Schimperna, J. Sprekels), Springer INdAM Series, vol 22. 357-377, Springer, 2017. [ISBN 978-3-319-64488-2](#)
12. G. Marinoschi, *Evoluția epidemiei de SARS-CoV-2 în România, Evoluția epidemiei în România din perspectiva modelelor matematice*, In: **Pandemia Covid-19 în România. Aspecte Clinice și Epidemiologice** (Ed. V. Voicu, C. Cernescu, I. Popescu), 56-69, Editura Academiei Române, 2020, [ISBN-978-973-27-3253-3](#)
13. G. Marinoschi, *Feedback stabilization of Cahn–Hilliard phase-field systems*, In: **Optimization and Control for Partial Differential Equations. Uncertainty quantification, open and closed-loop control, and shape optimization** (Eds. R. Herzog, M. Heinkenschloss, D. Kalise, G. Stadler, and E. Trélat), Radon Series on Computational and Applied Mathematics, vol. 29, 367-392, de Gruyter, 2022, [ISBN: 978-3-11-069596-0](#).
14. M. Iannelli, G. Marinoschi, *Optimal strategies for pathological epidermis: the optimal control of basal cell dynamics*, In; *Problems in Mathematical Biophysics. A volume in memory of Alberto Gandolfi* (Eds.: A. Fasano, F. Papa, A. d'Onofrio, C. Sinisgalli), 157-181, Springer Nature, 2024. DOI: [10.1007/978-3-031-60773-8_8](https://doi.org/10.1007/978-3-031-60773-8_8)

C. Volume editor

1. G. Marinoschi, S. Ion, *Proceedings of the First Workshop on Mathematical Modelling of Environmental Problems*, Romanian Academy Publishing House, 2002. (160 pages, ISBN: 973-27-0934-0).
2. S. Ion, G. Marinoschi, C. Popa, *Mathematical Modelling of Environmental and Life Sciences Problems, Proceedings of Workshops June 2003, Bucharest and May 2004, Constanta*, Romanian Academy Publishing House, 2004. (293 pages, ISBN: 973-27-1113-2).
3. S. Ion, G. Marinoschi, C. Popa, *Mathematical Modelling of Environmental and Life Sciences Problems, Proceedings of the Fourth Workshop September 2005, Constanta*, Romanian Academy Publishing House, 2006. (293 pages, ISBN: 973-27-1158-5).
4. S. Ion, G. Marinoschi, C. Popa, *Mathematical Modelling of Environmental and Life Sciences Problems, Proceedings of the Fifth Workshop September 2006, Constanta*, Romanian Academy Publishing House, 2008. (224 pages ISBN: 978-973-27-1641-0).
5. C. P. Grünfeld, S. Ion, G. Marinoschi, *Topics in Applied Mathematics and Mathematical Physics*, Romanian Academy Publishing House, 2008. (ISBN: 978-973-27-1719-6).
6. S. Ion, G. Marinoschi, C. Popa, *Mathematical Modelling of Environmental and Life Sciences Problems, Proceedings of the 6th Workshop, September 2007 and 7th Workshop, September 2008, Constanta*, Romanian Academy Publishing House, 2010. (281 pages ISBN: 978-973-27-1903-9).
7. L. Beznea, V. Brinzanescu, M. Iosifescu, G. Marinoschi, R. Purice, D. Timotin, *Advances in Mathematics, Invited Contributions at the Seventh Congress of Romanian Mathematicians, Brasov, 2011*, Publishing House of the Romanian Academy, 2013. ISBN:978-973-27-2316-6
8. S. Anița, N. Hritonenko, G. Marinoschi, A. Swiermiak, *Optimal Control, in Mathematical Modelling of Natural Phenomena*, 9, 4, Cambridge University Press, 2014. (ISSN: 0973-5348).
9. T. Barbu, G. Marinoschi, Gh. Moroșanu, I. Munteanu, *Advances in Variational and Partial Differential Equation-Based Models for Image Processing and Computer Vision*, Mathematical Problems in Engineering, Hindawi, 2018, <https://doi.org/10.1155/2018/1701052>
10. V. Barbu, G. Marinoschi, I. Tomescu (editors), *Pagini din istoria matematicii românești*, In: *Civilizația Românească*, vol.11, Editura Academiei Române, 2018.

D. Articles in peer-reviewed publications

1. G. Marinoschi, *Minimax principle for an electrically conducting fluid flow along a channel*, **Studii si Cercetari Matematice**, 34, 2, 147-157, 1982.
2. G. Marinoschi, *Contribution to the study of a conducting fluid flow in a MGH generator*, **Studii si Cercetari Matematice**, 34, 6, 536-547, 1982.
3. G. Marinoschi, *The influence of an isolated low obstacle upon an airstream*, **Meteorology and Hydrology**, 21, 1, 15-19, 1991.
4. G. Marinoschi, *On the propagation of small perturbations into a mixture of fluids*, **Meteorology and Hydrology**, 21, 2, 25-29, 1991.
5. G. Marinoschi, A. Georgescu, *Models of asymptotic approximation governing the atmospheric motion over a low obstacle*, **Studii si Cercetari Matematice**, 44, 3, 237-252, 1992.
6. G. Marinoschi, *Uniqueness and existence theorems concerning the propagation of small perturbations in an electrically conducting plasma*, **Rev. Roumaine Math. Pures Appl.** 37, 7, 625-636, 1992.
7. G. Marinoschi, *On a problem of eigenvalues and eigenvectors concerning the small wave propagation in a conducting plasma*, **Rev. Roumaine Phys.** 37, 5, 481-486, 1992.
8. G. Marinoschi, *Solution for the two-dimensional pollutant dispersion produced by an accident in a river*, **Rev. Roumaine Sci. Tech. - Méc. Appl.** 38, 6, 637-641, 1993.
9. G. Marinoschi, *A perturbation method for the solution of convection-diffusion problems with variable velocity*, **Rev. Roumaine Math. Pures Appl.** 39, 2, 147-153, 1994.
10. G. Marinoschi, M. Simota, R. Mic, *Pollution simulations for Danube ,according to mathematical models of dispersion in various hypotheses*, **Proc. XVIIth Conference of the Danube Countries, Band I/Vol. II**, Budapest, 817-822, 1994.
11. G. Marinoschi, *Solution for a radioactive pollutant one-dimensional dispersion in a river*, **Romanian Journal of Hydrology and Water Resources**, 1, 1, 25-28, 1994.
12. G. Marinoschi, M. Simota, R. Mic, *The study of the pollutant transport on the Danube*, **Romanian Journal of Hydrology and Water Resources**, 2, 1-2, 55-59, 1995.

13. G. Marinoschi, U. Jaekel, H. Vereecken, *Some considerations about the effective macrodispersion coefficient*, **Revue Roumaine Sci. Tech. - Mec. Appl.** 40, 4, 503-518, 1995.
14. G. Marinoschi, *An analytical approach of the solutions of nonadiabatic motion in radiative magnetogasdynamics*, **Acta Mechanica**, 114, 1-4, 71-81, 1996.
15. G. Marinoschi, U. Jaekel, H. Vereecken, *Analytical solutions for the convective-dispersion equation with a time-dependent effective dispersion coefficient*, **Z. Angew. Math. Mech.** 76, S5, 321-322, 1996.
16. G. Marinoschi, I. Ghergut, D. Homentcovschi, U. Jaekel, H. Vereecken, *Large time behaviour of pollutant concentrations instratified porous media*, **Proc. 9th Conference of the European Consortiun for Mathematics in Industry**, Technical University of Denmark, Lingby, 25-29 June 1996, 42-45, 1996.
17. H. Vereecken, U. Jaekel, C. Mouvet, C. Moreau, P. Burauel, M. Dust, D.J. Kim, D. Jacques, J. Feyen, A. Georgescu, N. Suciu, G. Marinoschi, *Critical parameters governing the mobility and fate of pesticides in soil/aquifer systems*, In: **Environmental Fate of Xenobiotics**, Proc. Symposium on Pesticide Chemistry - The Environmental Fate of Xenobiotics, Sep. 30-Oct 02, 1996 Castelnuovo Fogliani, Italy, 627-648, 1996.
18. G. Marinoschi, *Equations of non-adiabatic motion in radiative magnetogasdynamics: Uniqueness and existence*, **Rev. Roumaine Math. Pures Appl.** 41, 9-10, 663-673, 1996.
19. G. Marinoschi, I. Ghergut, D. Homentcovschi, U. Jaekel, H. Vereecken, *Determination of the macrodispersive parameters of a motion in a two-layer porous medium*, **Acta Mechanica**, 129, 1-2, 117-126, 1998.
20. D. Homentcovschi, I. Ghergut, G. Marinoschi, H. Vereecken, U. Jaekel, *Asymptotic solutions for two-site non-equilibrium transport*, **Acta Mechanica**, 129, 1-2, 127-132, 1998.
21. G. Marinoschi, *Determination of the parameters of the asymptotic diffusive transport in a n-layer stratified medium*, **Rev. Roumaine Math. Pures Appl.** 44, 1-2, 97-108, 1999.
22. G. Marinoschi, U. Jaekel, H. Vereecken, *Analytical Solutions of Three-Dimensional Convection-Dispersion Model with Time Dependent Coefficients*, **Z. Angew. Math. Mech.** 79, 6, 411- 422, 1999.

23. G. Marinoschi, *Study of the diffusive transport in a nonhomogeneous medium*, **Studii si Cercetari Matematice**, 51, 1, 87-98, 1999.
24. G. Marinoschi, *On some mathematical aspects of dispersion in fluids*, **Rev. Roumaine Sci. Tech. - Méc. Appl.** 44, 4, 385-394, 1999.
25. G. Marinoschi, *On the solution of a Neumann problem for a system of parabolic PDEs*, **Proc. Romanian Academy**, Series A, 2, 71-74, 2000.
26. G. Marinoschi, *On the rate of propagation of disturbances in a diffusion process*, **Rev. Roumaine Math. Pures Appl.** 46, 2-3, 297-304, 2001.
27. G. Marinoschi, H. Vereecken, *Analysis of the time behaviour of a diffusive transport in a stratified medium*, **Transport in Porous Media**, 45, 3, 365-384, 2001.
28. G. Marinoschi, *A note on the sources interaction in a diffusion process*, **Proc. Romanian Academy**, Series A, 2, 1- 2, 11-14, 2001.
29. G. Marinoschi, *On the one-dimensional sorption into a unsaturated nonhomogeneous soil*, **Mathematical Reports**, 54, 4, 379-387, 2002.
30. V. Barbu, G. Marinoschi, *Controlling the volumetric water content discontinuity in a stratified unsaturated soil*. In : **Nonlinear Analysis and Applications: To V. Lakshmikantham on his 80th birthday** (Eds. R.P. Agarwal, D. O'Regan), vol. 1, 241-258, Kluwer Academic Publishers, Dordrecht, 2003 (ISBN: 1-4020-1688-3)
31. G. Marinoschi, *On some problems concerning the nonlinear infiltration in unsaturated media*, **Proc. NPDE 2003**, Alushta, Ukraine, September, 15-21, 2003.
32. G. Marinoschi, *Nonlinear infiltration with a singular diffusion coefficient*, **Differential Integral Equations**, 16, 9, 1093-1110, 2003.
33. G. Marinoschi, A. Morega, *On the boundary value problem of water infiltration into a nonhomogeneous unsaturated soil*, **Proc. GAMM**, March 24-28, 2003, Abano Terme, Italy, **PAMM**, 3, 1, 466-467, 2003. <http://www3.interscience.wiley.com/cgi-bin/jtoc/91016652/>
34. G. Marinoschi, *A control problem for the infiltration in saturated-unsaturated soils*, **Proc. of 8th International Symposium on Automatic Control and Computer Science- Workshop on Control Theory (SACCS-WTC)**, Iasi, 1-9, 2004.

35. V. Barbu, G. Marinoschi, *Existence for a time dependent rainfall infiltration model with a blowing up diffusivity*, **Nonlinear Analysis Real World Appl.** 5, 2, 231-245, 2004.
36. G. Marinoschi, *A free boundary problem describing the saturated-unsaturated flow in a porous medium*, **Abstr. Appl. Anal.** 2004:9, 729-755, 2004. DOI: [10.1155/S10853375043111272004](https://doi.org/10.1155/S10853375043111272004)
37. C. Cusulin, M. Iannelli, G. Marinoschi, *Age-structured diffusion in a multi-layer environment*, **Nonlinear Anal. Real World Appl.** 6, 1, 207-223, 2005. doi:[10.1016/j.nonrwa.2004.08.006](https://doi.org/10.1016/j.nonrwa.2004.08.006)
38. G. Marinoschi, *A free boundary problem describing the saturated-unsaturated flow in a porous medium. II. Existence of the free boundary in the 3-D case*, **Abstr. Appl. Anal.** 2005:8, 813-854, 2005.
39. G. Marinoschi, *An identification problem in the theory of water infiltration in soils*, **Annals of University of Craiova, Math. Comp. Sci. Ser.**, Volume 32, 188-199, 2005. (ISSN: 1223-6934)
40. G. Marinoschi, G. Wang, *Identification of the Rain Rate for a Boundary Value Problem of a Rainfall Infiltration in a Porous Medium*, **Numer. Func. Anal. Optim.** 27, 2, 189-205, 2006. DOI: [10.1080/01630560600570021](https://doi.org/10.1080/01630560600570021)
41. G. Marinoschi, G. Wang, *Identification of the Rain Rate for a Boundary Value Problem of a Rainfall Infiltration in a Porous Medium. II. Determination of the conditions of optimality*, **Numer. Func. Anal. Optim.** 27, 2, 207-236, 2006. DOI: [10.1080/01630560600570039](https://doi.org/10.1080/01630560600570039)
42. G. Marinoschi, *Mathematical models of nonlinear saturated-unsaturated infiltration in porous media*, **Mathematical Reports**, 8, 3, 287-307, 2006.
43. C. Cusulin, M. Iannelli, G. Marinoschi, *Convergence in a multi-layer population model with age-structure*, **Nonlinear Anal. Real World Appl.** , 8, 887-902, 2007. doi:[10.1016/j.nonrwa.2006.03.012](https://doi.org/10.1016/j.nonrwa.2006.03.012)
44. Angelo Favini, G. Marinoschi, *Existence for a degenerate parabolic problem with a nonlinear operator*, **Journal Evol. Equ.** 7, 743-764, 2007.
45. G. Marinoschi, *The diffusive form of Richards' equation with hysteresis*, **Nonlinear Anal. Real World Appl.** 9, 518-535, 2008.
46. M. Iannelli, G. Marinoschi, *Well-posedness for a hyperbolic-parabolic Cauchy problem arising in population dynamics*, **Differential Integral Equations**, 21, 9-10, 917-934, 2008.

47. C. Ciutoreanu, G. Marinoschi, *Convergence of the finite difference scheme for a fast diffusion equation in porous media*, **Numer. Func. Anal. Optim.** 29, 9–10, 1034–1063, 2008.
48. G. Marinoschi, *Periodic solutions to fast diffusion equations with non Lipschitz convective terms*, **Nonlinear Anal. Real World Appl.** 10, 1048–1067, 2009.
49. G. Marinoschi, *Optimal control of metabolite transport across cell membranes driven by the membrane potential*, **Nonlinear Anal. Real World Appl.** 10, 3, 1276–1298, 2009.
50. A. Favini, G. Marinoschi, *Periodic behavior for a degenerate fast diffusion equation*, **J. Math. Anal. Appl.**, 351, 509-521, 2009.
51. M. Iannelli, G. Marinoschi, *Harvesting control for an age-structured population in a multi-layered habitat*, **J. Optimiz. Theory Appl.** 142, 107–124, 2009.
52. C. Fierbinteanu, D. Andronescu, R. Usvat, D. Cretoiu, C. Baicus, G. Marinoschi, *Acoustic radiation force imaging sonoelastography for noninvasive staging of liver fibrosis*, **World Journal of Gastroenterology**, 15, 44, 5525-5532, 2009.
53. A. Favini, G. Marinoschi, *Identification of the time derivative coefficient in a fast diffusion degenerate equation*, **J. Optimiz. Theory Appl.** 145, 249–269, 2010.
54. G. Marinoschi, *Well posedness of singular diffusion equations in porous media with homogeneous Neumann boundary conditions*, **Nonlinear Anal. (Theory, Methods and Applications)** 72, 3491-3514. 2010.
55. G. Marinoschi, *Well posedness of a time-difference scheme for a degenerate fast diffusion problem*, **Discrete Contin. Dyn. Syst. Ser. B**, 13, 2, 435-454, 2010.
56. M. Fabrizio, A. Favini, G. Marinoschi, *An optimal control problem for a singular system of solid-liquid phase transition*, **Numer. Func. Anal. Optim.**, 31, 9, 989- 1022, 2010. DOI: [10.1080/01630563.2010.512691](https://doi.org/10.1080/01630563.2010.512691)
57. A. Gandolfi, M. Iannelli, G. Marinoschi, *An age-structured model of epidermis growth*, **J. Math. Biology**, 62, 1, 111-141, 2011. DOI: [10.1007/s00285-010-0330-3](https://doi.org/10.1007/s00285-010-0330-3)

58. G. Marinoschi, *A Trotter–Kato type theorem in the weak topology and an application to a singular perturbed problem*, **J. Math. Anal. Appl.** 386, 1, 50-60, 2012. [doi:10.1016/j.jmaa.2011.07.039](https://doi.org/10.1016/j.jmaa.2011.07.039)
59. A. Favini, G. Marinoschi, *Identification for degenerate problems of hyperbolic type*, In "PDE's, Semigroup Theory, Inverse and Control Problems", Eds. A. Favini and A. Lorenzi, **Appl. Anal.**, 91, 8, 1511-1527, 2012. DOI: 10.1080/00036811.2011.630665
60. G. Marinoschi, *Existence to time-dependent nonlinear diffusion equations via convex optimization*, **J. Optimiz. Theory Appl.**, 154, 3, 792-817, 2012. DOI: 10.1007/s10957-012-0017-6
61. G. Marinoschi, *A variational approach to nonlinear diffusion equations with time periodic coefficients*, **Annals of the University of Bucharest (mathematical series)**, 3 (LXI), 173-185, 2012.
62. E.R. Ardeleanu, G. Marinoschi, *An asymptotic solution to a nonlinear reaction-diffusion system with chemotaxis*, **Numer. Func. Anal. Optim.** 34, 2, 117-148, 2013. DOI:10.1080/01630563.2012.704474
63. G. Marinoschi, *Well-posedness for chemotaxis dynamics with nonlinear cell diffusion*, **J. Math. Anal. Appl.**, 402, 2, 415-439, 2013. DOI: 10.1016/j.jmaa.2013.01.031
64. M. Iannelli, G. Marinoschi, *Approximation of a population dynamics model by parabolic regularization*, **Math. Methods Appl. Sci.** 36, 10, 1229–1239, 2013. DOI: 10.1002/mma.2675
65. M. Beldiman, I. Boacă, G. Marinoschi, *Optimization of a singular flow in a porous medium*, **Z. Angew. Math. Mech.** 93, 9, 633 – 647, 2013. DOI: 10.1002/zamm.201200178
66. A. Gandolfi, M. Iannelli, G. Marinoschi, *Time evolution for a model of epidermis growth*, **J. Evol. Equ.** 13, Issue 3, 509-533, 2013. DOI 10.1007/s00028-013-0188-0
67. G. Marinoschi, *A control problem for a cross-diffusion system in a nonhomogeneous medium*, **Journal Biol. Dyn.** 7, Suppl. 1, 88–107, 2013. DOI: 10.1080/17513758.2013.836574
68. G. Marinoschi, *Variational solutions to nonlinear diffusion equations with singular diffusivity*, **J. Optimiz. Theory Appl.**, 161, 2, 430–445, 2014. DOI: 10.1007/s10957-013-0430-5
69. G. Marinoschi, *Control approach to an ill-posed variational inequality*, **Math. Model. Nat. Phenom.** 9, 4, 153-170, 2014. <http://dx.doi.org/10.1051/mmnp/20149410>

70. G. Marinoschi, *A duality approach to nonlinear diffusion equations*, **Set-Valued Var. Anal.** 22, 783–807, 2014. [DOI 10.1007/s11228-014-0288-1](https://doi.org/10.1007/s11228-014-0288-1)
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