

## LIST OF PUBLICATIONS

### A. Books (inverse chronological order)

1. 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](#)
2. 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](#))
3. 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](#))
4. 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 (chronological order)**

(Thomson Reuters Web of Science journals marked by \*)

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.
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. Cecil Pompiliu Grünfeld, Stelian 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

**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 6<sup>th</sup> Workshop, September 2007 and 7<sup>th</sup> 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>

**D. Articles in peer-reviewed publications (chronological order)**

(Clarivate Analytics Web of Science journals marked by \*)

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 in stratified porous media*, **Proc. 9<sup>th</sup> Conference of the European Consortium 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 80<sup>th</sup> 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.
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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](#)
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](#)
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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](#))

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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.
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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.
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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)
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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](https://doi.org/10.1080/00036811.2011.630665)
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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](https://doi.org/10.1080/01630563.2012.704474)
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83. S. Ion, G. Marinoschi, *A self-organizing criticality mathematical model for contamination and epidemic spreading*, **Discrete Contin. Dyn. Syst. Ser. B\***, 22, 2, 383-405, 2017
84. V. Barbu, P. Colli, G. Gilardi, G. Marinoschi, *Feedback stabilization of the Cahn-Hilliard type system for phase separation*, **J. Differential Equations\***, 262, 2286-2334, 2017  
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