

CURRICULUM VITAE

CLAUDIA TIMOFTE

DATE DE CONTACT

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EXPERIENȚĂ PROFESIONALĂ

02/08 - prezent: Profesor universitar, Departamentul de Fizică teoretică, Matematici, Optică, Plasmă și Laseri, Facultatea de Fizică, Universitatea din București, România.
10/05 - 09/17: Cercetător științific, Centrul de Cercetare "Fizică teoretică", Facultatea de Fizică, Universitatea din București, România.
10/03 - 02/08: Conferențiar universitar, Departamentul de Fizică teoretică, Matematici, Optică, Plasmă și Laseri, Facultatea de Fizică, Universitatea din București, România.
10/98 - 09/03: Lector universitar, Departamentul de Fizică teoretică, Matematici, Optică, Plasmă și Laseri, Facultatea de Fizică, Universitatea din București, România.
10/91 - 09/98: Asistent universitar, Departamentul de Fizică teoretică, Matematici, Optică, Plasmă și Laseri, Facultatea de Fizică, Universitatea din București, România.
08/90 - 09/91: Matematician, C. C. S. S., București, România.
11/88 - 07/90: Programator, I. U. P. S., Botoșani, România.
09/88 - 10/88: Profesor, Școala nr. 1, Turda, Cluj, România.

EDUCAȚIE ȘI FORMARE

05/17: Abilitare în Matematică, Universitatea din București, România.
10/02 - 03/03: Bursă post-doctorală, Center of Mathematical Modelling, University of Chile, Santiago de Chile, Chile.
01/02 - 06/02: Bursă post-doctorală, Center of Mathematical Modelling, University of Chile, Santiago de Chile, Chile.
05/01 - 07/01: Bursă post-doctorală, University of Pisa, Italia.
11/00 - 04/01: Bursă post-doctorală, Complutense University, Madrid, Spania.
03/92 - 10/96: Doctorat în Matematică, Institutul de Matematică "Simion Stoilow" al Academiei Române, București, România.
10/83 - 07/88: Master, Universitatea din București, Facultatea de Matematică,

București, România.

09/79 - 07/83: Colegiul National “A. I. Cuza”, Alexandria, Teleorman, România.

AFILIERI PROFESIONALE

- American Mathematical Society (AMS)
- Society for Industrial and Applied Mathematics (SIAM)
- Society for Mathematical Sciences in Romania (SSMR)
- European Women in Mathematics (EWM)
- Romanian Women in Mathematics (RWM)

INVITAȚII LA UNIVERSITĂȚI DIN STRĂINĂTATE

- University of Sannio, Benevento, Italia (2018)
- Sapienza University, Roma, Italia (2017, 2019)
- University of Cantabria, Santander, Spania (2016)
- University of Lorraine, Metz, Franța (2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2024)
- Complutense University, Madrid, Spania (2005, 2014, 2015)
- Humboldt University, Berlin, Germania (2010)
- RWTH Aachen, Germania (2007, 2008, 2009)
- Taras Sevchenko University, Kiev, Ucraina (2008)
- University of Pavia, Italia (2008)
- Technical University of Eindhoven, Olanda (2005)

LIMBI STRĂINE

- Engleză (fluent)
- Franceză (avansat)
- Spaniolă (avansat)

ACTIVITATE DIDACTICĂ. CURSURI PREDATE

- Complemente de matematică
- Analiză matematică
- Analiză complexă
- Ecuații diferențiale
- Metode matematice pentru fizică și inginerie
- Teoria omogenizării

DOMENII DE CERCETARE

- Teoria omogenizării
- Procese de macrotransport

- Metode de relaxare pentru probleme de optimizare
- Metode asimptotice pentru studiul proceselor de difuzie în medii poroase
- Modele matematice în biologie

PROIECTE DE CERCETARE

- Grant 3046GR/1997, "Macrotransport processes. Applications to material dispersion problems", Romanian Academy, 1997, director de proiect.
- Grant 4064GR/1998, "Macrotransport processes. Applications to material and non-material dispersion problems", Romanian Academy, 1998, director de proiect.
- CNCSIS 2001-2003, Contract Nr. 35262/2001, "Applications of group theory to quasicrystals physics" – membru.
- "Homogenization and Multiple Scales 2000", financed by the European Union, contract HPRN-2000-00109 – membru.
- CNCSIS 2004-2006, "Representation of symmetry groups of carbon nanotubes with applications to the study of physical properties of such materials" - membru.
- CERES nr. 129/2004 "Mathematical formalisms for the description of quasiperiodic crystals and atomic clusters", 2004-2006 – membru.
- CERES nr. 192/2004, 2004 - 2006 – membru.
- CEx05-D10-02, 2005-2007 – membru.
- CEx05-D11-03, 2005-2007 – membru.
- CNCSIS 1059/2006, "Mathematical models for the asymptotic study of nonhomogeneous media", 2006 -2007, director de proiect.
- PN II-IDEI, CNCSIS 992, "Homogenization methods for the study of some nonlinear phenomena in complex media", 2007-2010, director de proiect.
- Proiect bilateral LEA Math Mode, 2015, "Homogenization of a Thermal Problem with Flux Jump" (cu dr. Renata Bunoiu, Metz, Franța).
- Proiect bilateral GDRI ECO-Math, 2018, "Homogenization of a Class of Diffusion Problems with Flux Jump" (cu dr. Renata Bunoiu, Metz, Franța).
- Proiect GDRI-ECO-Math (IMAR-CNRS), 2022, "Étude asymptotique d'une classe de problèmes non linéaires dans des domaines perforés" (cu dr. R. Bunoiu, Metz, Franța și dr. M. M. Boureau, Craiova, România).

LISTĂ DE LUCRĂRI

CĂRȚI ȘI CAPITOLE ÎN CĂRȚI

- C. Timofte, "Special Topics în Mathematics", Editura Universității din București, 2016, ISBN 978-606-16-0739-6.
- C. Timofte, "Complex Analysis", Editura Universității din București, 2014, ISBN 978-606-16-0459-3.
- C. Timofte, "Asymptotic Methods for the Study of Nonhomogeneous Media", Shaker Verlag GmbH, 2007, ISBN 978-3-8322-6092-7.
- C. Timofte, "Differential Calculus", Editura Universității din București, 2009, ISBN 978-973-737-611-4.
- C. Timofte, "Ordinary Differential Equations", Editura Universității din București, 2006, ISBN 973-737-123-2.

- C. Conca, J. I. Díaz, A. Linan, C. Timofte, "On the Homogenization of a Semilinear Problem Arising in Chemistry", capitol în "Multi Scale Problems and Asymptotic Analysis", GAKUTO International Series Mathematical Sciences and Applications, Volume 24, pp. 89-103, Gakkotosho, Tokio, Japonia, 2006, ISBN 4-7625-0433-5.
- C. Conca, J.I. Díaz, A. Linan, C. Timofte, "Homogenization in chemical reactive flows through porous media", capitol în "New trends in continuum mechanics", Theta Foundation, 2005.
- C. Timofte, C. Conca, "Interactive sources of oscillations in Signorini's type problems", *Partial Differential Equations and Inverse Problems*, capitol în "Contemporary Mathematics 362", American Mathematical Society Book Series, Providence, Rhode Island (2004), ISBN 0-8218-3448-7.
- C. Timofte, "Metode asimptotice pentru medii neomogene", Editura Didactică și Pedagogică, București, 2003, ISBN 973-30-2080-X.
- C. Timofte, "Procese de macrotransport", Editura Universității din București, 1997, ISBN 973-575-195-x.
- M. Piticu, M. Vraciu, C. Timofte, G. Pop, "Ecuații diferențiale. Probleme", Editura Universității din București, 1995.

ARTICOLE ÎN REVISTE CU REFERENȚI (SELECȚIE)

- M. Amar, D. Andreucci, C. Timofte, "Concentration and homogenization in composites with total flux interface conditions", *Annali di Matematica Pura ed Applicata* (1923-), 1-28, 2025.
- R. Bunoiu, K. Ramdani, C. Timofte, "Asymptotic analysis of a sign-changing transmission problem with a rapidly oscillating interface", *Electronic Journal of Differential Equations*, 2024, 60, 1-18, 2024.
- R. Bunoiu, C. Timofte, "Upscaling of a diffusion problem with flux jump in high contrast composites", *Applicable Analysis*, 103 (12), 2269-2282, 2024.
- C. Timofte, "A bidomain model for the calcium dynamics in living cells", *Romanian Reports in Physics*, 76 (2), 1-12, 2024.
- M. Amar, D. Andreucci, C. Timofte, "Asymptotic analysis for non-local problems in composites with different imperfect contact conditions", *Applicable Analysis*, 102 (16), 4518-4554, 2023.
- R. Bunoiu, K. Ramdani, C. Timofte, "Homogenization of a transmission problem with sign-changing coefficients and interfacial flux jump", *Communications in Mathematical Sciences*, 21 (7), 2029-2049, 2023.
- M. Amar, D. Andreucci, C. Timofte, "Interface potential in composites with general imperfect transmission conditions", *Z. Angew. Math. Phys.*, 74, 200, 2023.
- M. Amar, D. Andreucci, C. Timofte, "Heat conduction in composite media involving imperfect contact and perfectly conductive inclusions", *Mathematical Methods in the Applied Sciences*, 45 (17), 11355-11379, 2022.
- R. Bunoiu, C. Timofte, "Upscaling of a double porosity problem with jumps in thin porous media", *Applicable Analysis*, 101 (9), 3497-3514, 2022.
- R. Bunoiu, K. Ramdani, C. Timofte, "T-coercivity for the homogenization of sign-changing coefficients scalar problems with extreme contrasts", *Mathematical Reports*, 24 (1-2), 113-123, 2022.

- R. Bunoiu, C. Timofte, “Asymptotic analysis for a diffusion problem in thin filtering materials”, *Romanian Reports in Physics*, 74 (1), 2022.
- M. Amar, D. Andreucci, C. Timofte, “Well-posedness for a modified bidomain model describing bioelectric activity in damaged heart tissues”, *Mediterr. J. Math.*, 18:208, 2021.
- M. Amar, D. Andreucci, C. Timofte, “Homogenization of a modified bidomain model involving imperfect transmission”, *Communications on Pure & Applied Analysis*, 20 (5), 1755-1782, 2021.
- R. Bunoiu, K. Ramdani, C. Timofte, “T-coercivity for the asymptotic analysis of scalar problems with sign-changing coefficients in thin periodic domains”, *Electronic J. Differential Equations*, 2021 (59), 1-22, 2021.
- M. Amar, D. Andreucci, R. Gianni, C. Timofte, “Well-posedness of two pseudo-parabolic problems for electrical conduction in heterogeneous media”, *Journal of Mathematical Analysis and Applications*, 493 (2), 2021.
- M. Amar, D. Andreucci, R. Gianni, C. Timofte, “Concentration and homogenization in electrical conduction in heterogeneous media involving the Laplace–Beltrami operator”, *Calc. Var.* **59**, 99, 2020.
- M. Amar, D. Andreucci, R. Gianni, C. Timofte, “Homogenization results for a class of parabolic equations with a non-local interface condition via time-periodic unfolding”, *NoDEA Nonlinear Differential Equations Appl.*, 12, 26-52, 2019.
- G. Cardone, C. Perugia, C. Timofte, “Homogenization results for a coupled system of reaction-diffusion equations”, *Nonlinear Analysis*, 188, 236-264, 2019.
- M. Amar, D. Andreucci, R. Gianni, C. Timofte, “A degenerate pseudo-parabolic equation with memory”, *Comm. Appl. Ind. Math.*, 10 (1), 71-77, 2019.
- R. Bunoiu, C. Timofte, “Upscaling of a parabolic system with a large nonlinear surface reaction term”, *Journal of Mathematical Analysis and Applications*, 469 (2), 549-567, 2019.
- R. Bunoiu, C. Timofte, “Upscaling of a diffusion problem with interfacial flux jump leading to a modified Barenblatt model”, *ZAMM - Journal of Applied Mathematics and Mechanics/Zeitschrift für Angewandte Mathematik und Mechanik*, 2019; <https://doi.org/10.1002/zamm.201800018>.
- R. Bunoiu, C. Timofte, “Diffusion problems in composite media with interfacial flux jump”, *Romanian Reports in Physics*, 70, 116, 2018.
- R. Bunoiu, C. Timofte, “On the homogenization of a two-conductivity problem with flux jump”, *Communications in Mathematical Sciences*, 15 (3), pp. 745-763, 2017.
- C. Timofte, “Homogenization results for the calcium dynamics in living cells”, *Mathematics and Computers in Simulation*, 133 (3), pp. 165-174, 2017.
- C. Timofte, “Homogenization results for a carcinogenesis model”, *Mathematics and Computers in Simulation*, 133 (3), 298-310, 2017.
- A. Capatina, C. Timofte, “Homogenization results for micro-contact elasticity problems”, *Journal of Mathematical Analysis and Applications*, 441, pp. 462-474, 2016.
- R. Bunoiu, C. Timofte, “Homogenization of a thermal problem with flux jump”, *Networks and Heterogeneous Media*, 11 (4), pp. 545-562, 2016.
- J. I. Diaz, D. Gomez-Castro, C. Timofte, “The effectiveness factor of reaction-diffusion equations: homogenization and existence of optimal pellet shapes”, *JEPE*, 2, pp. 119-129, 2016.
- H.I. Ene, C. Timofte, “Homogenization results for a dynamic coupled thermoelasticity problem”, *Romanian Reports in Physics*, 68 (3), pp. 979-989, 2016.
- H.I. Ene, C. Timofte, I. Țențea, “Homogenization of a thermoelasticity model for a composite with imperfect interface”, *Bull. Math. Soc. Sci. Math. Roumanie*, Tome 58 (2), 147-160, 2015.

- H.I. Ene, C. Timofte, "Microstructure models for composites with imperfect interface via the periodic unfolding method", *Asymptotic Analysis*, 89 (1-2), pp. 111-122, 2014.
- A. Capatina, C. Timofte, "Boundary optimal control for quasistatic bilateral frictional contact problems", *Nonlinear Analysis: Theory, Methods and Applications*, 94, pp. 84–99, 2014.
- C. Timofte, "Homogenization results for ionic transport in periodic porous media", *Computers and Mathematics with Applications*, 68 (9), pp. 1024–1031, 2014.
- C. Timofte, "Multiscale analysis of diffusion processes in composite media", *Computers and Mathematics with Applications*, 66 (9), pp. 1573-1580, 2013.
- C. Timofte, "Multiscale modeling of heat transfer in composite materials", *Rom. Journ. Phys.*, 58 (9-10), pp 1418–1427, 2013.
- A. Capatina, H. Ene, C. Timofte, "Homogenization results for elliptic problems in periodically perforated domains with mixed-type boundary conditions", *Asymptotic Analysis*, 80 (1-2), pp. 45-56, 2012.
- C. Timofte, N. Cotfas, G. Pavel, „On the asymptotic behaviour of some elliptic problems in perforated domains", *Romanian Reports in Physics*, 64 (1), pp. 5–14, 2012.
- N. Cotfas, C. Timofte, G. Pavel, "Finite Frames and Finite Frame Quantizations", *Romanian Reports in Physics*, 63 (4), pp. 1026–1037, 2011.
- C. Timofte, „Multiscale analysis of composite structures", *Biomath*, 1, pp. 1-5, 2012.
- C. Timofte, "Homogenization results for nonlinear thermal diffusion problems in composite structures", *Central European Journal of Physics*, 8 (4), pp. 555-561, 2010.
- C. Timofte, "Homogenization Results for Hyperbolic-Parabolic Equations", *Romanian Reports in Physics* 62 (2), pp. 229-238, 2010.
- C. Timofte, "Homogenization Results for a Nonlinear Wave Equation in a Perforated Domain", *U.P.B. Sci. Bull., Series A* 72 (2), 2010.
- C. Timofte, "Multiscale analysis in dynamical heat transfer problems in biological tissues", *Romanian Reports in Physics*, 61 (2), pp. 269-280, 2009.
- B. Calmuschi-Cula, I. Kalf, C. Timofte, U. Englert, "Robust packing in cyclopalladated primary amines: isomorphous crystal structures of four complexes with varying substitution patterns", *Acta Cryst. C* 65, m48 - m51, 2009.
- C. Timofte, "Homogenization results for enzyme catalyzed reactions through porous media", *Acta Mathematica Scientia* 29B (1), pp. 74-82, 2009.
- C. Timofte, "Upscaling in dynamical heat transfer problems in biological tissues", *Acta Physica Polonica B* 39 (11), pp. 2811-2822, 2008.
- C. Timofte, "Homogenization results for climatization problems", *Annali dell'Universita di Ferrara Sez. VII (N.S.)*, 53 (2), pp. 437-448, 2007.
- C. Timofte, "Upscaling in Diffusion Problems in Domains with Semipermeable Boundaries", *Acta Physica Polonica B* 38 (8), pp. 2433-2443, 2007.
- C. Timofte, "Upscaling of variational inequalities arising in nonlinear problems with unilateral constraints", *Z. Angew. Math. Mech.* 87 (6), pp. 406-412, 2007.
- C. Timofte, "On the Michaelis-Menten enzyme mechanism", *Romanian Reports in Physics*, 57, 3, pp. 296-305, 2005.
- C. Conca, J. I. Diaz, A. Linan, C. Timofte, "Homogenization in chemical reactive flows through porous media", *Electron. J. Diff. Eqns.*, Vol. 2004, No. 40, pp. 1-22.
- C. Timofte, "On the Homogenization of Parabolic Problems with Dynamical Boundary Conditions in Perforated Media", *Romanian Reports in Physics*, 56, 2, pp. 131-140, 2004.
- C. Conca, J.I. Diaz, C. Timofte, "On the homogenization of a transmission problem arising in chemistry", *Romanian Reports in Physics*, 56, 4, pp. 613-622, 2004.
- C. Timofte, "On the asymptotic behavior of thermal Taylor dispersion processes in periodic media", *Journal of Theoretical and Applied Mechanics*, 41, pp. 75-88, 2003.

- C. Conca, F. Murat, C. Timofte, "A Generalized Strange Term in Signorini's Type Problems", ESAIM: Model. Math. Anal. Numer. (M2AN) **37**(5), pp. 773-806, 2003.
- C. Conca, J. I. Díaz, C. Timofte, "Effective Chemical Processes in Porous Media", Math. Models Methods Appl. Sci. (M3AS), **13** (10), pp. 1437-1462, 2003.
- C. Timofte, "Parabolic Problems with Dynamical Boundary Conditions in Perforated Media", Mathematical Modelling and Analysis, **8** (4), pp. 337-350, 2003.
- G. Buttazzo, C. Timofte, "On the relaxation of some optimal partition problems", Advances in Mathematical Sciences and Applications, **12**, 2, pp. 509-520, 2002.
- C. Timofte, "A macrotransport paradigm for thermal Taylor dispersion processes in periodic media", Romanian Reports in Physics, **52** (5-6-7), pp. 441-446, 2000.
- C. Timofte, "Asymptotics of thermal dispersion in periodic media", Journal of Theoretical and Applied Mechanics, **37** (1), pp. 95-108, 1999.
- C. Timofte, "On the asymptotic behavior of some Taylor dispersion processes in periodic media", Romanian Reports in Physics, **50** (7-8-9), pp. 681-690, 1998.

LUCRĂRI ÎN VOLUME ALE UNOR CONFERINȚE INTERNAȚIONALE (SELECȚIE)

- M. Amar, D. Andreucci, R. Gianni, C. Timofte, "Homogenization of a heat conduction problem with a total flux boundary condition", Proceedings of the XXIV AIMETA Conference - Lecture Notes in Mechanical Engineering, Springer, 2020.
- C. Timofte, "Multiscale analysis of heat transfer problems in composite media", Proceedings of International Symposium on Stability, Vibrations and Control of Systems, Budapest, Ungaria, 2016.
- R. Bunoiu, C. Timofte, "On the homogenization of a diffusion problem with flux jump", Biomath Communications, **3** (1), 2016.
- J.I. Díaz, D. Gómez-Castro, C. Timofte, „On the influence of pellet shape on the effectiveness factor of homogenized chemical reactions", Proceedings of the XXIV Congress on Differential Equations and Applications-XIV Congress on Applied Mathematics, Cádiz, Spania, pp. 1–6, 2015.
- C. Timofte, "On the Homogenization of a Damped Wave Equation", AIP Conference Proceedings, **1301**, 2010.
- C. Timofte, "Homogenization Results for a Coupled System of Diffusion Equations in a Porous Medium", AIP Conference Proceedings, **1281**, pp. 635-638, 2010.
- C. Timofte, "Homogenization Results for a Wave Equation with Interior and Boundary Damping", ICNPAA, Cambridge Scientific Publishers, 2010.
- C. Timofte, "Asymptotic Analysis in Dynamical Heat Transfer Problems in Heterogeneous Periodic Media", AIP Conference Proceedings, **1186**, pp. 248-258, 2009.
- C. Timofte, "Homogenization results for diffusion problems in composite structures", Proceedings of International Conference MCM-2008, Riga, Letonia, 2008.
- C. Timofte, "Upscaling in Reaction-Diffusion Problems", AIP Conference Proceedings, **936**, pp. 547-550, Melville, New York, 2007.
- C. Timofte, "Upscaling in Nonlinear Thermal Diffusion Problems in Composite Materials", Progress in Industrial Mathematics at ECMI 2006, Springer Series, **12**, pp. 328-332, 2007.
- C. Timofte, "Homogenization in Nonlinear Chemical Reactive Flows", Proceedings of the International Conference MATH'06, Istanbul, Turcia, pp. 250-255, 2006.
- C. Timofte, "On the homogenization of a nonlinear problem arising in elasticity", Proceedings of the International Conference NOLASC'06, București, pp. 15-20, 2006.

- C. Timofte, "Homogenization Results for Enzymatic Dispersion Processes", GAMM Annual Meeting, Berlin, Germania, 2006.
- C. Conca, J. I. Díaz, A. Linan, C. Timofte, "Effective Chemical Reactive Flows Through Porous Media", Midnight Sun Conference, Narvik, Norvegia, 2004.
- C. Timofte, "On the effective behavior of some chemical reactive flows through porous media", French-Romanian Colloquium on Applied Mathematics, Craiova, România, 2004.
- C. Timofte, C. Conca, "Interactive sources of oscillations in Signorini's type problems", Proceedings of Pan-American Advanced Studies Institute on Partial Differential Equations, Inverse Problems and Non-Linear Analysis, 2003, Santiago de Chile, Chile.
- C. Timofte, "Application of central limit theorems to thermal dispersion in periodic media", Proceedings of the First HMS 2000 International School and Conference on Homogenization, Napoli, 2001, Italia, Gakuto International Series in Mathematics, L. Carbone, R. De Arcangelis eds., pp. 281-289, 2003.
- C. Timofte, "On the asymptotic behavior of thermal Taylor dispersion processes in periodic media", Proceedings of the International Conference on Homogenization and Applications to Material Sciences, Universitatea de Vest din Timișoara, pp. 101-110, 2001.
- C. Timofte, "Application of central limit theorems to macrotransport processes", Proceedings of the International Conference on Analysis and Numerical Computation of Solutions of Nonlinear Systems Modelling Physical Phenomena, Universitatea de Vest din Timișoara, pp. 416-425, 1997.

PREZENTĂRI INVITATE LA CONFERINȚE INTERNAȚIONALE

- "Asymptotic analysis for a class of non-local problems in composites with imperfect interfaces", Calculus of Variations and Nonlinear Analysis in the Applied Sciences, Universitatea Sapienza din Roma, Roma, Italia, 2024.
- "Homogenization results for a class of non-local problems in composites with imperfect interfaces", Asymptotics 2024, TU Bergakademie, Freiberg, Germania, 2024.
- "Homogenization results for diffusion problems in thin periodic media", International Conference on Applied Mathematics and Numerical Methods (ICAMNM), Craiova, România, 2022.
- "Homogenization results for non-local problems in composite media with imperfect contact conditions", Two days of PDEs in heterogeneous and irregular structures, Roma, Italia, 2022.
- "Microstructure Models for Composites with Imperfect Interfaces", International Conference on Applied Mathematics and Numerical Methods (ICAMNM), Craiova, România, 2016.
- "Multiscale Analysis of Nanocomposite Materials", Workshop "NanoMath 2014", Zaragoza, Spania, 2014.
- "Multiscale analysis of composite structures with applications to biology", BIOMATH 2012, Sofia, Bulgaria, 2012.
- "On the asymptotic behavior of a Signorini problem in a perforated domain", The Seventh Congress of Romanian Mathematicians, Brașov, 2011.
- "On the Homogenization of a Damped Wave Equation", Second Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences, Sozopol, Bulgaria, 2010.
- "Homogenization in Nonlinear Chemical Reactive Flows", MATH'06, Istanbul, Turcia, 2006.

- "On the homogenization of a nonlinear problem arising in elasticity", NOLASC'06, București, România, 2006.
- "Effective Chemical Processes in Porous Media", Invited lecture, University Complutense, Madrid, Spania, 2005.
- "On the homogenization of some climatization problems", Second International Conference on Applied Mathematics, Plovdiv, Bulgaria, 2005.
- "Homogenization results for chemical reactive flows", CASA Minisymposium, Universitatea Tehnică din Eindhoven, Olanda, 2005.
- "On the homogenization of Signorini's type problems", Twelfth International Colloquium on Numerical Analysis and Computer Sciences with Applications, Plovdiv, Bulgaria, 2003.
- "Homogenization of stratified periodic structures via Bloch decomposition", Thirteenth International Colloquium on Differential Equations, Plovdiv, Bulgaria, 2002.
- "On the homogenization of an evolutionary boundary-value problem", Twelfth International Colloquium on Differential Equations, Plovdiv, Bulgaria, 2001.
- "Homogenization methods for diffusion problems", Eleventh International Colloquium on Differential Equations, Plovdiv, Bulgaria, 2000.
- "A macrotransport paradigm for dispersion phenomena in periodic porous media", International Colloquium on Differential Equations, Plovdiv, Bulgaria, 1999.

EXPUNERI INVITATE LA SEMINARII ÎN STRĂINĂTATE

- "Upscaling in Diffusion Processes in Composite Media with Imperfect Interfaces", University of Sannio, Benevento, Italia, 2018.
- "Diffusion Processes in Composite Media with Imperfect Interfaces", University of Lorraine, Metz, Franța, 2017.
- "Homogenization Results for Composite Media with Imperfect Interfaces", University of Cantabria, Santander, Spania, 2016.
- "Multiscale Analysis of Diffusion Processes in Composite Media", University of Lorraine, Metz, Franța, 2016.
- "Effective Elastic and Thermoelastic Properties of Composites with Imperfect Interfaces", University Complutense of Madrid, Spania, 2014.
- "Upscaling in Diffusion Problems with Semipermeable Boundaries", University of Pavia, Italia, 2008.
- "Homogenization results for chemical reactive flows", Taras Sevchenko University, Kiev, Ucraina, 2008.
- "Homogenization methods for thermal diffusion problems", RWTH Aachen, Germania, 2007.
- "Homogenization results for chemical reactive flows", Technical University of Eindhoven, Olanda, 2005.
- "New results on Freundlich kinetics", Complutense University, Madrid, Spania, 2005.
- "On the homogenization of Signorini's type problems", CMM, University of Chile, Santiago de Chile, Chile, 2002.
- "Homogenization methods for diffusion problems", Complutense University, Madrid, Spania, 2001.
- "Nonhomogeneous dynamical boundary-value problems in perforated domains", University of Pisa, Italia, 2001.

COMUNICĂRI LA CONFERINȚE INTERNAȚIONALE (SELECȚIE)

- R. Bunoiu, C. Timofte, "Homogenization results for diffusion problems in thin periodic composites with imperfect interfaces", International Conference on Elliptic and Parabolic Problems: GAETA 2024, Gaeta, Italia, 2024.
- R. Bunoiu, C. Timofte, "Asymptotic analysis for diffusion problems in thin periodic media", Biomath, Pomorie, Bulgaria, 2023.
- M. Amar, D. Andreucci, C. Timofte, "Homogenization results for non-local problems in composites with imperfect interfaces", The Tenth Congress of Romanian Mathematicians, Pitești, 2023.
- R. Bunoiu, C. Timofte, "Multiscale modeling of a class of thermal diffusion problems in composite media", SIMAI, Roma, Italia, 2018.
- M. Amar, D. Andreucci, R. Gianni, C. Timofte, "Homogenization in heterogeneous media modeled by the Laplace-Beltrami operator", SIMAI, Roma, Italia, 2018.
- R. Bunoiu, C. Timofte, "Upscaling of reaction-diffusion problems in composites with imperfect interfaces", Biomath, Sofia, Bulgaria, 2018.
- C. Timofte, "Multiscale analysis of a carcinogenesis model", International Conference on Mathematical Methods and Models in Biosciences, (Biomath 2015), Blagoevgrad, Bulgaria, 2015.
- J.I. Díaz, D. Gómez-Castro, C. Timofte, "On the influence of pellet shape on the effectiveness factor of homogenized chemical reactions", XXIV Congress on Differential Equations and Applications, Cádiz, Spania, 2015.
- C. Timofte, "Homogenization results for the calcium dynamics in living cells", BIOMATH 2014, International Conference on Mathematical Methods and Models in Biosciences, Sofia, Bulgaria, 2014.
- H. Ene, C. Timofte, "Microstructure models for composites with imperfect interface via the periodic unfolding method", Joint International Meeting of the American Mathematical Society and the Romanian Mathematical Society, Alba Iulia, România, 2013.
- C. Timofte, "Multiscale analysis of diffusion processes in composite media", BIOMATH 2013, Sofia, Bulgaria, 2013.
- A. Capatina, C. Timofte, "Boundary optimal control for a quasistatic bilateral frictional contact problem", French-Romanian Colloquium of Applied Mathematics, București, 2012.
- C. Timofte, "Homogenization results for a coupled system of diffusion equations in a porous medium", ICNAAM 2010, Rhodos, Grecia, 2010.
- A. Capatina, H. Ene, C. Timofte, "Homogenization results for elliptic problems in periodically perforated domains with mixed-type boundary conditions.", French-Romanian Colloquium, Poitiers, Franța, 2010.
- C. Timofte, "Homogenization Results for a Wave Equation with Interior and Boundary Damping", ICNPAA, Brazilia, 2010.
- C. Timofte, "Asymptotic analysis in dynamical heat transfer problems in heterogeneous periodic media", First Conference of the Euro-American Consortium for Promoting the Application of Mathematics in Technical and Natural Sciences, Sozopol, Bulgaria, 2009.
- C. Timofte, "Homogenization results for dynamical heat transfer problems in biological tissues", French-Romanian Colloquium of Applied Mathematics, Brașov, 2008.

- C. Timofte, "Homogenization results for diffusion problems in composite structures", International Conference "Mechanics of Composite Materials", Riga, Letonia, 2008.
- C. Timofte, "Upscaling in Nonlinear Reaction-Diffusion Problems", International Congress of Romanian Mathematicians, București, 2007.
- C. Timofte, "Homogenization of Diffusion Problems in Domains with Semipermeable Boundaries", Fifth Conference on Applied Mathematics and Scientific Computing, Brijuni, Croația, 2007.
- C. Timofte, "Upscaling in nonlinear thermal diffusion problems", ICIAM 2007 (GAMM), Zurich, 2007.
- C. Timofte, "Upscaling in reaction-diffusion problems", ICNAAM 2007, Corfu, Grecia, 2007.
- C. Timofte, "Homogenization results for enzymatic dispersion processes", GAMM Annual Meeting, Berlin, Germania, 2006.
- C. Timofte, "On the homogenization of some transmission problems in chemical reactive flows", French-Romanian Colloquium on Applied Mathematics, Chambéry, Franța, 2006.
- C. Timofte, "Homogenization Results for Nonlinear Thermal Diffusion Problems in Composite Materials", ECMI, Leganes-Madrid, Spania, 2006.
- C. Timofte, "On the homogenization of a nonlinear problem arising in elasticity", NOLASC'06, București, 2006
- C. Timofte, "Effective chemical processes in porous media", University Complutense, Madrid, Spania, 2005.
- C. Timofte, "On the Homogenization of some chemical reactive flows", SIAM GS05, Avignon, Franța, 2005.
- C. Timofte, "Homogenization results for boundary climatization problems", Conference on Applied Mathematics, Brijuni, Croația, 2005.
- C. Timofte, "On the homogenization of some climatization problems", Second International Conference on Applied Mathematics, Plovdiv, Bulgaria, 2005.
- C. Timofte, "Homogenization in chemical flows", Midnight Sun Conference, Narvik, Norvegia, 2004.
- C. Timofte, "Homogenization results for climatization problems", Workshop "Homogenization and shape optimization", Lisabona, Portugalia, 2004.
- C. Timofte, "On the effective behavior of some chemical reactive flows through porous media", French-Romanian Colloquium on Applied Mathematics, Craiova, 2004.
- C. Timofte, "On the homogenization of some semilinear problems arising in elasticity", ICNODEA, Cluj, România, 2004.
- C. Timofte, "A generalized strange term in Signorini's type problems", Pan-American Advanced Studies Institute on Partial Differential Equations, Inverse Problems and Nonlinear Analysis, Santiago de Chile, Chile, 2003.
- C. Timofte, "On the homogenization of a variational inequality arising in elasticity", Fifth World Congress of Romanian Mathematicians, Pitești, România, 2003.
- C. Timofte, "Homogenization results for chemical reactive flows through porous media", New Trends in Continuum Mechanics, Constanța, România, 2003.
- C. Timofte, "Interactive Oscillation Sources in Signorini's Type Problems", Homogenization and Optimal Design, Pisa, Italia, 2003.
- C. Timofte, "On the homogenization of a parabolic dynamical boundary-value problem", International Conference on Homogenization, Madrid, Spania, 2001.
- C. Timofte, "Application of central limit theorems to thermal dispersion in periodic media", International Conference on Homogenization, University "Federico II" Naples, Italia, 2001.

- C. Timofte, "On the effective dispersion coefficients for some thermal transport processes in porous media", Ukrainian International Congress, Kiev, 2001.
- C. Timofte, E. Zuazua, "Dynamical boundary-value problems in perforated media", Homogenization and Applications to Material Sciences, Timișoara, România, 2001.
- C. Timofte, "Homogenization methods for thermal dispersion problems", Third European Congress of Mathematics, Barcelona, Spain, 2000.
- C. Timofte, "Homogenization methods for thermal dispersion problems", French - Romanian Colloquium of Applied Mathematics, Constanța, România, 2000.
- C. Timofte, "Application of central limit theorems to thermal dispersion in periodic media", French -Romanian Colloquium of Applied Mathematics, Metz, Franța, 1998.
- C. Timofte, "Application of central limit theorems to macrotransport processes", International Conference on Analysis and Numerical Computation of Solutions of Nonlinear Systems Modelling Physical Phenomena, Timișoara, România, 1997.

COMUNICĂRI LA CONFERINȚE NAȚIONALE (SELECȚIE)

- R. Bunoiu, C. Timofte, "Homogenization Results for Fiber Composites with Imperfect Interfaces", Sesiunea Științifică Anuală a Facultății de Fizică, București, 2023.
- H.I. Ene, C. Timofte, „Homogenization Results for a Dynamic Coupled Thermoelasticity Problem”, Sesiunea Științifică Anuală a Facultății de Fizică, București, 2015.
- C. Timofte, "On the asymptotic behaviour of some elliptic problems in perforated domains", Sesiunea Științifică Anuală a Facultății de Fizică, București, 2010.
- C. Timofte, "Homogenization Results for a Nonlinear Wave Equation in a Perforated Domain", Conferința Națională de Mecanica Solidelor, București, 2009.
- C. Timofte, "Multiscale analysis in dynamical heat transfer problems in biological tissues", Sesiunea Științifică Anuală a Facultății de Fizică, București, 2008.
- C. Timofte, "Asymptotic Analysis of Diffusion Problems in Domains with Semipermeable Boundaries", Sesiunea Științifică Anuală a Facultății de Fizică, București, 2007.
- C. Timofte, "Upscaling of Chemical Reactive Flows", Conferința Națională de Mecanică "Caius Iacob", București, 2005.
- C. Timofte, "Internal energy transport in adiabatic and nonadiabatic systems", Conferința Națională de Fizică, Constanța, 2000.
- C. Timofte, "On the effective dispersion coefficients for some thermal transport processes in porous media", Conferința Națională de Fizică, Constanța, 1998.
- C. Timofte, "A perturbation method for some random flows", Conferința "300 Years of Higher Education at Bucharest University", 1994.

București, 15 mai 2025