

LISTA DE LUCRĂRI

Prof.dr.ing. Gabriela CIUPRINA

I. TEZA DE DOCTORAT (T)

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- T1. **Gabriela Ciuprina**, *Studiul câmpului electromagnetic în medii neliniare – contribuții privind optimizarea dispozitivelor electromagnetice*, U.P.B., 1999.
<http://www.lmn.pub.ro/~gabriela/teza/rezumat.ps.gz>
http://www.lmn.pub.ro/~gabriela/articole/GabrielaCiuprina_TezaDoctorat.pdf
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II. CĂRȚI PUBLICATE (C)

- Ca** – Cărți / cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute.
Cb - Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor).
Cc - Cărți publicate în alte edituri, cu ISBN.
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- Ca1. **Gabriela Ciuprina**, Daniel Ioan, Mihai Popescu, Sorin Lup, Ruxandra Barbulescu, 10 seminarii de baza despre circuite electrice, Editura MatrixROM, 2023, 260 pagini, ISBN 978-606-25-0801-2.

- Ca2. **Gabriela Ciuprina**, *Algoritmi numerici pentru calcule științifice în ingineria electrică*, Editura MatrixROM, 2013, 201 pagini, ISBN 978-606-25-0008-5. http://www.lmn.pub.ro/~gabriela/books/AlgNr_MatrixRom2013.pdf

- Ca3. **Gabriela Ciuprina**, *Algoritmi numerici prin exerciții și implementări în Matlab*, Editura MatrixROM, 2013, 121 pagini, ISBN 978-606-25-0009-2.
http://www.lmn.pub.ro/~gabriela/books/AlgNrExMatlab_MatrixRom2013.pdf
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- Cb1. Martijn van Beurden, Neil V. Budko, **Gabriela Ciuprina**, Wil Schilders, Harshit Bansal, Ruxandra Barbulescu (Editors, 69 authors), *Scientific Computing in Electrical Engineering*, in the Book series *Mathematics in Industry*, vol. 43, 230 pages, Springer 2024, ISBN 978-3-031-54516-0, <https://link.springer.com/book/10.1007/978-3-031-54517-7>

- Cb2. **G. Ciuprina**, D. Ioan (Editors, 121 authors), *Scientific Computing in Electrical Engineering*, in the Book series *Mathematics in Industry*, vol. 11, 464 pages, Springer, 2007, ISBN 978-3-540-71979-3.
<http://www.springer.com/math/cse/book/978-3-540-71979-3>

- Cb3. I. Munteanu, **G. Ciuprina**, F.M.G.Tomescu, *Modelarea numerică a câmpului electromagnetic prin programe Scilab*, Editura Printech, București, România, 2000, 140 pagini, ISBN 973-652-000-5.
<http://www.lmn.pub.ro/~gabriela/books/mnce2000.pdf>

- Cb4. **G. Ciuprina**, D.Ioan, I.Munteanu, M.Rebican, R.Popa, *Optimizarea numerică a dispozitivelor electromagnetice*, 207 pagini, Editura Printech, 2002, ISBN 973-652-465-5. <http://www.lmn.pub.ro/~gabriela/books/opt2002.pdf>

- Cb5. D.Ioan, I.Munteanu, B.Ionescu, M.Popescu, R.Popa, M.Lăzărescu, **G.Ciuprina**, *Metode numerice în ingineria electrică*, Editura MATRIX-ROM, Bucuresti, 1998 (326 pagini), ISBN 973-9390-04-8.
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III. ALTE MATERIALE PUBLICATE (I,D)

- I** - Culegeri și Îndrumare publicate (separate în edituri cu ISBN și în tipografii locale/de instituții sau de uz intern).
D - Alte lucrări publicate: capitole publicate în volume colective, capitole teoretice redactate, sisteme de laborator funcționale etc.

I1. **G. Ciuprina**, M. Rebican, D.Ioan - *Metode numerice în ingineria electrică - Îndrumar de laborator pentru studenții facultății de Inginerie electrică*, Editura Printech, 2013, 206 pagini, ISBN 978-606-23-0077-7.
http://www.lmn.pub.ro/~gabriela/studenti/lmn/indrumar/IndrumarMN_Printech2013.pdf

I2. D. Ioan, I. Munteanu, B. Ionescu, M. Popescu, R. Popa, M. Lăzărescu, **G. Ciuprina**, *Metode numerice - îndrumar de laborator*, 328 pagini, litografia UPB, 1995.

D1. Daniel Ioan, **Gabriela Ciuprina**, W.H.A. Schilders, "Complexity reduction of electromagnetic systems", Book chapter in the book *Model Order Reduction, Volume 3 Applications*, 2021 - de Gruyter, Edited by: Peter Benner et al. (Eds), <https://www.degruyter.com/document/doi/10.1515/9783110499001-005/html>, pp. 145-199. DOI 10.1515/9783110499001-005, ISBN 978-3-11-050044-8.

D2. Anton Duca, Laurentiu Duca, **Gabriela Ciuprina**, Daniel Ioan, „SPSO parallelization strategies for electromagnetic applications” (book chapter), Springer Series in Computational Intelligence, vol 229, pag. 75-95, 2017, ISBN 978-3-319-48506-5, <http://www.springer.com/gp/book/9783319485041> DOI: 10.1007/978-3-319-48506-5_5

D3. **Gabriela Ciuprina**, Jorge Fernández Villena, Daniel Ioan, Zoran Ilievski, Sebastian Kula, E. Jan W. ter Maten, Kasra Mohaghegh, Roland Pulch, Wil H.A. Schilders, L. Miguel Silveira, Alexandra , Stefanescu, and Michael Striebel, "Parameterized Model Order Reduction", Book chapter in the book *Coupled Multiscale Simulation and Optimization in Nanoelectronics Series: Mathematics in Industry*, Vol. 21 Subseries: The European Consortium for Mathematics in Industry, Günther, Michael (Ed.), June 2015 <http://www.springer.com/gp/book/9783662466711>, 93 pages, pp.267-359, ISBN 978-3-662-46672-8.

D4. **G. Ciuprina**, C.B. Diță, M.I. Andrei, and D. Ioan, *Hierarchical Sparse Circuits for the Modeling of Homogeneous Domains in High Frequency ICs*, Book chapter in the book *Advances in Engineering: from theory to application* (E. Andronescu, C. Burileanu, Eds.), Politehnica Press, ISBN 978-605-515-381-3, pp.181-188, 2012.

D5. D. Ioan and **G. Ciuprina**, *Reduced Order Models of On-chip Passive Components and Interconnects, Workbench and Test Structures*, Book chapter in the book *Model Order Reduction: Theory, Research Aspects and Applications* (W.H.A. Schilders, H.A. van der Vorst, J. Rommes, Eds.), in the book series *Mathematics in Industry*, Springer-Verlag, Heidelberg, ISBN: 978-3-540-78840-9 vol. 13, pp.447-467, 2008. <http://www.springer.com/math/cse/book/978-3-540-78840-9>

IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R,V)

Ris - Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate în alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de selecție a revistelor pe baza unor criterii de performanță). *Se menționează la fiecare lucrare includerea în Baza ISI [ultimul Factor Impact, ISSN] și/sau denumirea altei (altor) BDI.*

Rio – Alte reviste de specialitate de circulație internațională.

Rns - Reviste de specialitate de circulație națională recunoscute de CNCSIS. Se menționează Categoria CNCSIS.

Rno - Alte reviste de specialitate de circulație națională.

Vis- Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate, indexate ISI Thomson Reuters sau indexate în alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de selecție a publicațiilor pe baza unor criterii de performanță. *Se menționează la fiecare lucrare includerea în Baza ISI [ISI Proceedings, ISSN] și/sau denumirea altei (altor) BDI.*

Vi - Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate;

Vn - Volumele unor manifestări științifice naționale.

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- Ris1. R. Barbulescu, **G. Ciuprina**, A. Duca, P. Machado and L.M. Silveira, “Physics-informed neural networks for a highly nonlinear dynamic system”, Journal of Mathematics in Industry, 2025, vol.15 (1); DOI 10.1186/s13362-025-00172-1, ISSN 2190-5983, Impact Factor 1.2 (Q3 in JCR: Mathematics, interdisciplinary applications).
- Ris2. **G. Ciuprina** and R. V. Sabariego, “Electric circuit element boundary conditions for electromagneto-quasistatic and full wave models in A, ϕ potentials and their finite element implementation”, Journal of Mathematics in Industry, 2024, vol.14 (1); DOI 10.1186/s13362-024-00165-6, ISSN 2190-5983, Impact Factor 1.2 (Q3 in JCR: Mathematics, interdisciplinary applications), **WOS: 001380740000001**.
- Ris3. **G. Ciuprina** and R. V. Sabariego, "Numerical Stability of Dual Full-Wave Formulations with Electric Circuit Element Boundary Conditions," in IEEE Transactions on Magnetics, Article number 7401504, ISSN 0018-9464, doi: 10.1109/TMAG.2023.3335154, 2024, **WOS 001178305600014**.
- Ris4. **G. Ciuprina**, D.Ioan, R.V.Sabariego, “Dual full-wave formulations with Radiant Electric Circuit Element boundary conditions.- Application to monopole antenna modeling”, Journal of Computational Science, Vol. 74, 2023, 102155, ISSN 1877-7503, <https://doi.org/10.1016/j.jocs.2023.102155>, Impact Factor 3.3 (Q2 in JCR: Computer Science, Theory and Methods), **WOS:001105419000001**.
- Ris5. **Gabriela Ciuprina**, Daniel Ioan, Ruth V. Sabariego, “Electric Circuit Element Boundary Conditions in the Finite Element Method for Full-Wave Passive Electromagnetic Devices”, Journal of Mathematics in Industry, 2022, vol.12 (1), 2021; DOI10.1186/s13362-022-00122-1, ISSN 2190-5983, Impact Factor 2.6 (Q2 in JCR: Mathematics, interdisciplinary applications), **WOS:000760205400001**.
- Ris6. Aurel-Sorin Lup, **Gabriela Ciuprina**, Daniel Ioan, Anton Duca, Alexandra Nicoloiu, Dan Vasilache, “Physics-aware macromodels for MEMS switches”, COMPEL-The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, Volume 39 Issue 2 Page 497-509 Published 2020, DOI: 10.1108/COMPEL-06-2019-0267, ISSN: 0332-1649, Impact Factor 0.59, **WOS:000528873300001**
- Ris7. **Gabriela Ciuprina**, Daniel Ioan, Aurel-Sorin Lup, Luis Miquel Silveira, Anton Duca, Michael Kraft, “Simplification by pruning as a model order reduction approach for RF-MEMS switches” COMPEL-The International Journal for Computation and Mathematics in Electrical and Electronic Engineering Volume 39 Issue 2 Pages 511-523, 2019, ISSN: 0332-1649, DOI: 10.1108/COMPEL-06-2019-0266, **WOS:000534314100002**, 2019 Impact factor 0.59
- Ris8. Daniel Ioan, Ruxandra Barbulescu, Luis Miguel Silveira, **Gabriela Ciuprina**, “Reduced order models of myelinated axonal compartments”, Journal of Computational Neuroscience, Volume 47 Issue 2-3 Pages 141-166, 2019. ISSN: 0929-5313, DOI: 10.1007/s10827-019-00726-4, **WOS:000492934100001**, 1.811 – 2019 impact factor, Quartile Q2 in JCR Category “Mathematical & Computational Biology”.
- Ris9. Anton Duca, Laurentiu Duca, **Gabriela Ciuprina**, “QPSO with avoidance behaviour to solve electromagnetic optimization problems”, International Journal of Applied Electromagnetics and Mechanics, Volume 59, Issue 1, pages 63-69, 2019. ISSN: 1383-5416, DOI: 10.3233/JAE-171170, **WOS:000462267200009**, 0.684- 2019 Journal Impact Factor
- Ris10. Ruxandra Barbulescu, Daniel Ioan, **Gabriela Ciuprina**, “Coupled Macromodels for the simulation of the Saltatory Conduction”, University Politehnica Bucharest Scientific Bulletin Series C- Electrical Engineering and Computer Science, Volume 81, Issue3, Pages 143-152, 2019. ISSN: 2286-3540, **WOS:000477996400012**
- Ris11. Anton Duca, Laurentiu Duca, **Gabriela Ciuprina**, Asim Egemen Yilmaz, Tolga Altinoz, “PSO algorithms and GPGPU technique for electromagnetic problems”, International Journal of Applied Electromagnetics and Mechanics, Vol. 53, pages S249-S259, DOI: 10.3233/JAE-140166, 2017, <https://content.iospress.com/articles/international-journal-of-applied-electromagnetics-and-mechanics/jae140166> ISI Web of Science **WOS:000396838100010**

- Ris12. **Gabriela Ciuprina**, Daniel Ioan, Rick Janssen, and Edwin van der Heijden, "MEEC Models for RFIC Design Based on Coupled Electric and Magnetic Circuits", IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, Vol. 34, No. 3, pp. 395-408, 2015, <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7003979>, ISI Web of Science WOS:000351764500007, DOI: 10.1109/TCAD.2014.2387863
- Ris13. Okkes Tolga Altinoz, Asim Egemen Yilmaz, Anton Duca and **Gabriela Ciuprina**, "Incorporating the Avoidance Behavior to the Standard Particle Swarm Optimization 2011", Advances in Electrical and Computer Engineering, Vol. 15, No. 2, pp. 51-58, 2015. ISI Web of Science WOS 000356808900007, DOI: 10.4316/AECE.2015.02007 <http://www.aece.ro/abstractplus.php?year=2015&number=2&article=7>
- Ris14. Okkes Tolga Altinos, Eren Akca, Asim Egemen Yilmaz, Anton Duca and Gabriela Ciuprina, "Parallel Implementation of Desirability Function-Based Sclarization Approach for Multiobjective Optimization Problems", Informatica Journal of Computing and Informatics, Vol. 39, No.2, pp.115-123, 2015, ISI Web of Science WOS:000362399800003, <http://www.informatica.si/index.php/informatica/article/viewFile/828/624> ISSN: 0350-5596
- Ris15. **Gabriela Ciuprina**, Daniel Ioan, Ioan Alexandru Lazăr, Cosmin Bogdan Diță, *Vector Fitting Based Adaptive Frequency Sampling for Compact Model Extraction on HPC Systems*, IEEE Transactions on Magnetics, vol.48, no.2, pp.431-434, 2012, ISSN 0018-9464, ISI Web on science, WOS:000299509100067 <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6136613>
- Ris16. Ioan-Alexandru Lazăr, **Gabriela Ciuprina**, Daniel Ioan, *Effective extraction of accurate reduced order models for HF-ICs using multi-CPU architectures*, Inverse Problems in Science and Engineering, Vol 20, no.1, pp. 15-27, 2012, ISSN 1741-5977, ISI Web of science, WOS:000302054600003 <http://www.tandfonline.com/doi/abs/10.1080/17415977.2011.624622>
- Ris17. Alexandra Raluca Stefanescu, **Gabriela Ciuprina**, Daniel Ioan, *Variability Models for Transmission Lines*, Revue Roumaine des Sciences Techniques - Serie Electrotechnique et Energetique, Vol. 55, no.4, pp. 394-404, 2010. ISSN 0035-4066, ISI Web on science, WOS:000286710100007 <http://revue.elth.pub.ro/upload/219807art07.pdf>
- Ris18. D. Ioan, **G. Ciuprina**, L.M. Silveria, *Effective Domain Partitioning With Electric and Magnetic Hooks*, IEEE Transactions on Magnetics, Vol. 45, no. 3, pp. 1328-1331, 2009. ISSN: 0018-9464, ISI Web on science, WOS:000264019000096 http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=4787316
- Ris19. **Gabriela Ciuprina**, Daniel Ioan, Diana Mihalache, Alexandra Stefanescu, *The Electromagnetic Circuit Element – the Key of Modelling EM Coupled Integrated Components*, Revue Roumaine des sciences techniques – electrotechnique et energetique, vol. 54, no.1 pp. 37-46, 2009. ISI Web on science, WOS:000264503000004 <http://revue.elth.pub.ro/upload/186681G Ciuprina04.pdf>
- Ris20. D. Ioan, **G. Ciuprina**, WHA Schilders, *Parametric Models Based on the Adjoint Field Technique for RF Passive Integrated Components*, IEEE Transactions on Magnetics, vol. 44, no.6. pp 1658-1661, 2008. ISSN: 0018-9464, ISI Web on science, WOS:000258183400248, http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=4526900
- Ris21. Daniel Ioan, Wil Schilders, **Gabriela Ciuprina**, Nick van der Meijs, Wim Schoenmaker, *Models for Integrated Components Coupled with their Environment*, COMPEL- The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, vol. 27, no.4, pp.820-829, 2008. ISSN: 0332-1649, ISI Web on science, WOS:000258420500013, <http://www.emeraldinsight.com/10.1108/03321640810878225>
- Ris22. D. Ioan, **G. Ciuprina**, M. Rădulescu and E. Seebacher, *Compact Modeling and Fast Simulation of On-Chip Interconnect Lines*, IEEE Transactions of Magnetics, vol. 42, no. 4, pp 547-550, 2006. ISSN: 0018-9464, ISI Web on science, WOS:000236675200012, http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=1608264
- Ris23. Daniel Ioan, **Gabriela Ciuprina**, Marius Rădulescu, *Absorbing boundary conditions for Compact Modeling of On-chip Passive Structures*, COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, vol. 25, no. 3, pp. 652-659, 2006. ISSN: 0332-1649, ISI Web on science, WOS:000239539900014 <http://www.emeraldinsight.com/10.1108/03321640610666817>
- Ris24. Peter Meuris, **Gabriela Ciuprina** and Ehrenfried Seebacher, *High Frequency Simulations and Compact Models compared with measurements for passive on-chip components*, International Journal of Numerical Modelling: Electronic Networks, Devies and Fields, vol. 18, no. 3, pp. 189-201, John Wiley, 2005, ISI Web on science, WOS:00022908210000

- Ris25. **Gabriela Ciuprina**, Daniel Ioan, Irina Munteanu, *Use of Intelligent-Particle Swarm Optimization in Electromagnetics*, IEEE Transactions on Magnetics, vol. 38, no. 2, pp. 1037-1040, 2002. ISSN: 0018-9464, **ISI Web on science**, **WOS:000175086800181** http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=996266
- Ris26. Daniel Ioan, **Gabriela Ciuprina**, Catalin Ciobotaru, *Hybrid and Concurrent Algorithms for Nonlinear Magnetic Field Problems*, IEEE Transactions on Magnetics, vol. 36, no.4, pp. 1553-1556, 2000. ISSN: 0018-9464, **ISI Web on science**, **WOS:000090067900207** http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=00877735
- Ris27. Daniel Ioan, **Gabriela Ciuprina**, Andras Szigeti, *Embedded Stochastic-Deterministic Optimization Method with Accuracy Control*, IEEE Transactions on Magnetics, vol. 35, no.3, pp. 1702-1705, 1999. ISSN: 0018-9464, **ISI Web on science**, **WOS:000080490900152** http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=00767353
- Ris28. D. Ioan, I. Munteanu, **G.Ciuprina**, *Adjoint Field Technique Applied in Optimal Design of a Nonlinear Inductor*, IEEE Transactions on Magnetics, vol. 34, no.5, pp. 2849-2852, 1998. ISSN: 0018-9464, **ISI Web on science**, **WOS:000075960200110** http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=717663
- Ris29. D.Ioan, **G.Ciuprina**, C.Dumitrescu, *Use of Stochastic Algorithms for Distributed Architectures in the Optimization of Electromagnetic Devices*, IEEE Transactions on Magnetics, vol. 34, no.5, pp. 3000-3003, 1998. ISSN: 0018-9464, **ISI Web on science**, **WOS:000075960200148** http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=00717701
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- Rio1. **Gabriela Ciuprina**, Daniel Ioan, *Distributed Evolutionary Strategies for Electromagnetic Devices Optimization*, Japan Society of Applied Electromagnetics and Mechanical Systems, pp.386-391,1999,ISBN, 4931455077. **JSAEM**, **British library**
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- Rns1. Aurel-Sorin Lup and **Gabriela Ciuprina**, Analysis of membrane perforations on the RF behavior of capacitive MEMS switches, Acta Electrotehnica, ISSN 1841-3323 vol. 54, no.5, pp. 252-255, 2013. – CNCIS categoria B+ **VINITI (Russia)**, **DOAJ (Sweden)**
- Rns2. Iulian Andrei, Emanuela Caciulan, Daniel Dan, **Gabriela Ciuprina**, Daniel Ioan, *Matlab Based Parallel Deterministic Optimization of the Loney's Solenoid*, Acta Electrotehnica, ISSN 1841-3323, vol. 51, no. 5, pp. 9-14, 2010. – CNCIS categoria B+ **VINITI (Russia)**, **DOAJ (Sweden)**
- Rns3. Daniel Ioan, **Gabriela Ciuprina**, Wil Schilders, Wim Schoenmaker, Michele Stucchi, Ehrenfried Seebacher, Daniel De Zutter, Joseph Maubach, *Compact Modeling of Passive on-chip Components - European Research Project FP5/IST/CODESTAR*, Revue Roumaine des Sciences Technique - Electrotechnique et Energetique, vol. 51, no. 3, pp. 303-310, 2006.
- Rns4. Daniel Ioan, **Gabriela Ciuprina**, *Improved Algorithms for Solving Nonlinear Equations of the Magnetic Field*, Revue Roumaine des Sciences Technique - Electrotechnique et Energetique, vol. 48, no.2-3, pp. 209-220, 2003.
- Rns5. G.Atanasiu, P.Brad, D.Ioan, **G.Ciuprina**, *Air Gap magnetic permeance estimation for a switched reluctance motor*, Revue Roumaine des Sciences Technique - Electrotechnique et Energetique, vol. 43, no.3, pp. 385-390, 1998.
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- Rno1. **Gabriela Ciuprina**, Daniel Ioan, *Evolutionary Strategies Used in Optimization of Electromagnetic Field Devices*, Journal of Electrical Engineering, Vol. 1, no. 2, pp. 14-18, 2001.
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- Vis1. **Gabriela Ciuprina**, Daniel Ioan, Ruth Sabariego, "Implementation and Validation of the Dual Full-Wave E and H Formulations with Electric Circuit Element Boundary Conditions", **Springer** Book Series Mathematics in Industry-

Cham, Scientific Computing in Electrical Engineering, Volume 43, pages 69-77, DOI 10.1007/978-3-031-54517-7_8, ISBN 978-3-031-54516-0 2024.

- Vis2. Daniel Ioan, **Gabriela Ciuprina**, “BG Approximations of Multiphysics pH Distributed Systems with Finite Number of Ports”, **Springer** Book Series Mathematics in Industry-Cham, Scientific Computing in Electrical Engineering, Volume 43, pages 175-183, DOI 10.1007/978-3-031-54517-7_20, ISBN 978-3-031-54516-0, 2024.
- Vis3. Ruxandra Barbulescu, **Gabriela Ciuprina**, Anton Duca, L Miguel Silveira, “Machine Learning Techniques to Model Highly Nonlinear Multi-field Dynamics”, **Springer** Book Series Mathematics in Industry-Cham, Scientific Computing in Electrical Engineering, Volume 43, pages 125-132, DOI 10.1007/978-3-031-54517-7_14, ISBN 978-3-031-54516-0, 2024.
- Vis4. **Gabriela Ciuprina**, Daniel Ioan, Mihai Popescu, Sorin Lup, “Electric Circuit Element Boundary Conditions in the Finite Element Method for Full-Wave Frequency Domain Passive Devices”, Springer Book Series Mathematics in Industry-Cham, Scientific Computing in Electrical Engineering, Volume 36, pages 95-106, DOI 10.1007/978-3-030-84238-3_10, ISBN: 978-3-030-84238-3 , **WOS:000787298700010**, 2021.
- Vis5. **Gabriela Ciuprina**, Daniel Ioan, “Effective Modeling of Interconnects with Domain Partitioning and Model Order Reduction”, 2021 IEEE 27th Int. Symposium for Design and Technology in Electronic Packaging (SIITME 2021) , pp.93-96, WOS: **000786441900022**, 2021.
- Vis6. Ruxandra Barbulescu, **Gabriela Ciuprina**, Tudor Ionescu, Daniel Ioan, Luis Miguel Silveira, „Efficient Model Reduction of Myelinated Compartments as Port-Hamiltonian Systems”, Springer Book Series Mathematics in Industry-Cham, Scientific Computing in Electrical Engineering, Volume 36, pages 3-12, DOI10.1007/978-3-030-84238-3_1, ISBN: 978-3-030-84238-3 , **WOS:000787298700001**, 2021.
- Vis7. Cristina Mamoc, Anton Duca, Gabriela Ciuprina, Sorin Lup, "Multi objective QPSO algorithms to solve an electromagnetic benchmark problem", Proceedings of the International Symposium on Fundamentals of Electrical Engineering (ISFEE), Bucharest, Romania, pages 1-6, 5-7 Nov. 2020. 10.1109/ISFEE51261.2020.9756185, **WOS:000812321500054**.
- Vis8. Anton Duca, **Gabriela Ciuprina**, Sorin Lup, Ibrahim Hameed, “ACO(R) Algorithm's Efficiency for Electromagnetic Optimization Benchmark Problems”, Proceedings of the 11th International Symposium on Advanced Topics in Electrical Engineering (ATEE), pages. 1-5, Bucharest, Romania, 28-30 March 2019, doi: 10.1109/ATEE.2019.8724735, **WOS:000475904500003**
- Vis9. Aurel Sorin Lup, Mihai Popescu, **Gabriela Ciuprina**, Daniel Ioan, „Parallel Simulations in the Static Multiphysics Analysis of RF-MEMS Switches”, Proceedings of the 20th International Symposium on Electrical Apparatus and Technologies (SIELA), Bourgas, Bulgaria, June 03-06, pages 1-4, 2018, **WOS:000454837100106**
- Vis10. Aurel-Sorin Lup, **Gabriela Ciuprina**, Daniel Ioan, Ruxandra Barbulescu, Anton Duca, Mihai Popescu, „Parametric macromodels for the RF behaviour of capacitive switches”, Proceedings of the International Symposium on Fundamentals of Electrical Engineering (ISFEE), Bucharest, Romania, pages 1-6, 1-3 Nov. 2018, **WOS:000480396400012**
- Vis11. Aurel Sorin Lup, **Gabriela Ciuprina**, Daniel Ioan, Anton Duca, Alexandra Stefanescu, Dan Vasilache, Michael Kraft, “Parametric Reduced Order Models in Static Multiphysics Analysis of MEMS Switches”, Proceedings of the 10th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, Romania, March 23-25, pages 513-518, 2017. **WOS:000403399400100**
- Vis12. Daniel Ioan, Ruxandra Barbulescu, Jean Ciurea, **Gabriela Ciuprina**, Przemyslaw Syrek, “Simple hierarchical models of the Transcranial Magnetic Stimulation”, Proceedings of the 10th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, Romania, March 23-25, pages 398-403, 2017. **WOS:000403399400078**

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Vn.12. B.Vasiliu, I.Munteanu, D.Ioan, **G.Ciuprina**, *Use of Message-Passing Distributed Architecture in Optimisation of a SMES*, Proceedings of the 4-th Romanian Conference on Open Systems (ROSE 96), pp 72-79, Bucharest, Romania, 1996.

V. BREVETE DE INVENȚIE / INOVAȚII (B,A)

B - Brevete de invenție. - N/A

A - Inovații și alte creații. - N/A

VI. CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P,F)

P – Proiecte de cercetare-dezvoltare – inovare obținute prin competiție, pe bază de contract/grant, în țară/străinătate (**Pn** – naționale, **Pi** - internaționale).

F – Alte lucrări de cercetare – dezvoltare

Obs.-a se menționa calitatea de responsabil/director sau coautor.

Pn.1. **Director de proiect** - *Instrumente software avansate și metodologii pentru modelarea multifizică și simularea microcomutatoarelor de radio-frecvență - ToMeMS*, (PN-II-PT-PCCA-2011-3.1-0842) nr 5 / 03.07.2012, <http://mems.lmn.pub.ro>, 2012-2016.

Pn.2. **Responsabil de proiect** din partea UPB - *Senzor de temperatura bazat pe structuri de tip SAW pe AlN/Si cu frecvența de rezonanță în domeniul gigahertzilor - SETSAL* (PN-II-PT-PCCA-2013-4) nr 15 / 21.08.2014), 2014-2016. <http://www.imt.ro/setsal/>

Pn.3. **Director de proiect** - *Instrumente software avansate pentru modelarea câmpului electromagnetic în blocurile de radio frecvență - STAR*, CNCSIS (UEFISCSU) nr. 609 / 16.01.2009, <http://idei.lmn.pub.ro/star/>, 2009-2011.

Pn.4. **Director de proiect** - *Promovarea participării la programele europene de cercetare a comunității științifice naționale implicată în domeniul calculului științific în ingineria electrică - proSCEE*, CEEX – Modul III, nr 261 / 01.08.2006, <http://proscce.lmn.pub.ro/>, 2006-2008 .

Pn.5. Cercetător - *Metodologii și instrumente pentru proiectarea nano-electronica automată - nEDA*, CEEX – Modul I, nr 03 / 06.10.2005, <http://neda.lmn.pub.ro/>, 2005-2008

Pi.1. Cercetător: COST-TD1307- European Model Order Reduction Network <http://mornet.lmn.pub.ro/> 2013-2018

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- F25. *Tehnici avansate pentru analiza numerica a campului electromagnetic* - Raport LMN 2/96 - FLD - CC - ALL, finantat partial de grant M.I. / C.N.C.S.U. / 5001 / 275, 1996.
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VII. COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE (E)

E – Lucrări prezentate la diferite seminarii/expoziții, conferințe, etc.

- E1. **Gabriela Ciuprina**, *Physics Based Reduced Models for RF-MEMS Switches*, prezentare invitata la EU-MORNET Workshop MOR4MECHATRONICS, februarie 2018, Jade Hochschule, Wilemshaven, Germania.
<https://www.jade-hs.de/en/the-university/departments/engineering/research/modelling-and-simulation-of-mechatronic-systems/workshop-mor-4-mechatronics-2018/>
- E2. **Gabriela Ciuprina**, *Reduced Order MEEC Models for RFIC Design based on Coupled Electric and Magnetic Circuits*, prezentare invitata la EU-Mornet Working Group 2 Meeting, Bucharest, Romania, martie 2015, prezentarea este disponibila online la <http://mornet.lmn.pub.ro/talks.html>
- E3. **Gabriela Ciuprina**, Bazele electrotehnicii - suport de curs electronic (899 slide-uri), <http://cs.curs.pub.ro/2017/course/view.php?id=50> (site-ul poate fi accesat ca vizitator), 2018.
- E4. **Gabriela Ciuprina**, Algoritmi numerici - suport de curs electronic (1220 slide-uri), <http://an.lmn.pub.ro/>, 2017.
- E5. **Gabriela Ciuprina**, Alexandra Ștefănescu, Daniel Ioan and Radu Popescu *Extraction of reduced parametric circuit models for passive on-chip components*, 6th Japanese-Mediterranean Workshop on Applied Electromagnetic Engineering for Magnetic, Superconducting and Nano Materials, JAPMED6, Politehnica University of Bucharest, Romania, July27-29, 2009, pp.101-102.
- E6. **Gabriela Ciuprina**, Daniel Ioan and Diana Mihalache, *Magnetic Hooks in the Finite Integration Technique: a Way Towards Domain Decomposition*, the 13th Biennial IEEE Conference on Electromagnetic Field Computation, May 11-15, 2008, Athens, Greece. 1 page
- E7. **Gabriela Ciuprina**, *From interconnected circuits to interconnected systems: the importance of a correct excitation*, prezentare la Symposium on Recent Advances in Model Order Reduction, 23 Nov. 2007, Centre for Analysis, Scientific Computing and Applications (CASA), Eindhoven University of Technology, disponibila la <http://www.win.tue.nl/casa/meetings/special/mor07/>
- E8. **G. Ciuprina**, *Course on Model Order Reduction, Introduction to Matlab ROM workbench, Hands-on experience with ROM workbench*, , April 10-12, 2006. prezentare la Centre for Analysis, Scientific Computing and Applications (CASA), Eindhoven University of Technology, disponibila la <http://www.win.tue.nl/casa/meetings/special/mor/>
- E9. **Gabriela Ciuprina**, Daniel Ioan, Diana Mihalache – “*Compact models of passive on-chip components obtained from high frequency Simulations*”, Romania - Book of abstracts Scientific Computing in Electrical Engineering, pp. 40, SCEE 2006, Sinaia – Romania, 17-22 September 2006. ISBN 978-973-718-520-4.
- E10. Daniel Ioan, **Gabriela Ciuprina**, Dragos Nicolae, Diana Mihalache – “*On- chip Interconnect Lines Simulation using Finite Integration Technique adapted to Transversal Magnetic Field*”, Book of abstract Scientific Computing in Electrical Engineering, pp. 102, SCEE 2006, Sinaia – Romania, 17-22 September 2006. ISBN 978-973-718-520-4.
- E11. Daniel Ioan, **Gabriela Ciuprina** – *The RomWorkbench – A Matlab Based Tool for the Testing of a-posteriori Model Order Reduction Methods*, prezentare invitata la “Model Order Reduction, Coupled Problems and Optimization Workshop”, Lorentz Center, Leiden, the Netherlands, 29-23 Sept 2005, disponibila la <http://www.lorentzcenter.nl/lc/web/2005/160/abstracts.php3?wsid=160>

- E12. Daniel Ioan, **Gabriela Ciuprina**, Marius Rădulescu and Marius Piper, *All Levels Strategy to Reduce the Model Order of On-chip Passive Components*, Proceedings of the Conference of electromagnetic Field Computation (CEFC 04), Seoul, Korea, Digest Book pp. 345, 2004.
- E13. Marius-Cristian Rădulescu, Daniel Ioan and **Gabriela Ciuprina**, *Integrated Circuit Parameter Extraction with Accuracy Control*, Proceedings of the Conference on Electromagnetic Field Computation (CEFC 02), Perugia, Italy, 2002.
- E14. Daniel Ioan, Irina Munteanu and **Gabriela Ciuprina**, *Electromagnetic Simulation and Reduced Order Modeling of Passive Components in Radio Frequency Integrated Circuits*, Proceedings of the Conference on Electromagnetic Field Computation (CEFC 02), Perugia, Italy, 2002.
- E15. Daniel Ioan, **Gabriela Ciuprina**, Irina Munteanu, *Intelligent Particle Swarm Optimization*, Proc.of the 6-th International Workshop on Optimization and Inverse Problems in Electromagnetism (OIPE 2000), 2 pages, Torino, Italy, 2000.
- E16. **Gabriela Ciuprina** and Daniel Ioan, *Optimization of Electromagnetic Devices by Distributed Stochastic-Deterministic Algorithms - TEAM 22 Benchmark Problem*, Seminarul Național de Electrotehnică, 2 iulie 1998, 3 pages.