

**Пълен списък на публикациите
на проф. дн инж. Анжела Славова Попиванова
според базите данни Scopus, Web of Science, IEEE,
Zentralblatt**

Монографии:

1. Slavova, A., Cellular Neural Networks: Dynamics and Modeling, Kluwer Academic Publisher, 2003
2. Popivanov, P., Slavova, A., Nonlinear waves. Introduction. World Scientific, Singapore, 2011.
3. Slavova A., P. Zecca. Modeling Natural Phenomena via Cellular Nonlinear Networks. Cambridge Scholars Publishing, 2017, ISBN:978-1-5275-0365-6.
4. Popivanov, P., Slavova, A., Nonlinear Waves. Geometrical Approach, World Scientific, Singapore, 2018.

Книга:

1. Chua, L., Tetzlaff, R., Slavova, A., Memristor Computing Systems, Springer, 2022

Статии:

1. A. Slavova, Dynamic properties of cellular neural networks. J. Appl. Math. Stochastic Anal. 6, No. 2, 107-116 (1993).
2. A. Slavova, Constructive method for solving a nonlinear singularly perturbed system of differential equations in critical case. J. Appl. Math. Stochastic Anal. 6, No. 1, 69-81 (1993).
3. A. Slavova, Constructive method for solving nonlinear singularly perturbed systems. Ladde, G. S. (ed.) et al., Dynamic systems and applications. Vol. 1. Proceedings of the 1st international conference, held at Morehouse College, Atlanta, GA, USA, May 26-29, 1993. Atlanta, GA: Dynamic Publishers, Inc. 315-322 (1994).
4. A. Slavova, D. Panteleev, On stability analysis of nonlinear cellular neural networks with dynamic output equation. God. Vissh. Inst. Arkhit. Stroit. Sofiya, Svirk II, Mat. 37(1993), 81-92 (1994).
5. A. Slavova, Nonlinear singularly perturbed systems of differential equations: a survey, Mathematical problems in engineering, 1(4), 1995, 275-301
6. A. Slavova, Cellular neural networks with nonlinear dynamics. Neural Parallel Sci. Comput. 3, No. 3, 369-377 (1995).
7. A. Slavova, Constructive method for solving nonlinear singularly perturbed systems of integro-differential equations. Dyn. Syst. Appl. 4, No. 3, 421-427 (1995)

8. A. Slavova, Stability analysis of cellular neural networks with nonlinear dynamics. Bilchev, S. (ed.) et al., Differential equations and applications. Proceedings of the 5th international conference, CDE'V, Rousse, Bulgaria, August 24-29, 1995. Rousse: Union of Bulgarian Mathematicians, 110-117 (1995).
9. A. Slavova, Constructive approach for solving nonlinear singularly perturbed systems with nonconstant matrix at the derivative. J. Math. Anal. Appl. 196, No. 3, 1008-1020 (1995).
10. A. Slavova, Proc. Stability analysis of cellular neural networks with hysteresis nonlinearity in the feedback system, IEEE Int. Workshop on CNNA, (1996).
11. A. Slavova, D. Panteleev, Nonlinear singularly perturbed systems of differential equations and applications. Ital. J. Pure Appl. Math. 1, 137-158 (1997).
12. A. Slavova, Generalization of CNN with hysteresis nonlinearity, Proc. IEEE Int. Workshop on CNNA, 1998, 56-61
13. A. Slavova, Constructive method for solving nonlinear singularly perturbed systems of integrodifferential equations. Ital. J. Pure Appl. Math. 3, 55-62 (1998).
14. A. Slavova, Dynamic properties of cellular neural networks with nonlinear output function, IEEE Trans. CAS I: Fundamental Theory and Applications, 45(5), 1998, 587-590 IF 0.739 Q2
15. P. Popivanov, A. Slavova, Blow up and singularities of the solutions of homogeneous quasilinear hyperbolic systems in the plane. Bainov, D. (ed.), Proceedings of the 8th international colloquium on differential equations, Plovdiv, Bulgaria, August 18-23, 1997. Utrecht: VSP. 379-384 (1998).
16. A. Slavova, Stability analysis of nonlinear cellular neural networks with hysteresis in the output dynamics. Appl. Mech. Eng. 3, No. 2, 305-322 (1998).
17. A. Slavova, Topological degree approach for studying nonlinear cellular neural networks. Neural Parallel Sci. Comput. 6, No. 2, 267-279 (1998).
18. A. Slavova, Modeling nonlinear waves and PDEs via cellular neural networks, Annali dell'Universita di Ferrara, 45(1), 1999, 311-326
19. A. Slavova, CNN model for hyperbolic equations with hysteresis, Proc. IEEE Int. Workshop CNNA, 2000, 259-264
20. A. Slavova, A., P. Zecca, CNN model for studying FitzHugh-Nagumo equation. C. R. Acad. Bulg. Sci. 53, No. 6, 31-34 (2000).
21. P. Popivanov, A. Slavova, Blow up of the solutions for quasilinear hyperbolic homogeneous systems in the plane. C. R. Acad. Bulg. Sci. 53, No. 5, 11-14 (2000).
22. A. Slavova, Applications of some mathematical methods in the analysis of cellular neural networks, J. Computational and Applied Mathematics, 114(2), 2000, 387-404 IF 0.455 Q3
23. P. Popivanov, A. Slavova, Cellular neural network model for nonlinear waves with exponential memory, Lecture Notes in Computer Science, vol. 1988, 2001, 684-691 IF 0.415 Q3
24. A. Slavova, Stability analysis of cellular neural networks with nonlinear dynamics, Nonlinear Analysis: Real World Applications, 2(1), 2001, 93-103
25. G. Agranovich, E. Litsyn, A. Slavova, Discrete-continuous control for chaotic

- cellular neural networks. C. R. Acad. Bulg. Sci. 55, No. 3, 9-14 (2002).
26. A. Slavova, P. Zecca, CNN model for studying dynamics and traveling wave solutions of FitzHugh-Nagumo equation, J. Computational and Applied Mathematics, 15(1), 2003, 13-24 IF 0.567 Q3
 27. A. Slavova, Cellular neural network models of some equations from biology, physics and ecology. Funct. Differ. Equ. 10, No. 3-4, 579-591 (2003).
 28. A. Slavova, CNN model for semilinear parabolic equation with memory. C. R. Acad. Bulg. Sci. 56, No. 10, 11-16 (2003). Q3
 29. A. Slavova, Angela, Nonlinear cellular neural networks with special output dynamics. Oyibo, Gabriel (ed.), Advances in mathematics research. Vol. 5. Hauppauge, NY: Nova Science Publishers (ISBN 1-59033-799-9). Advances in Mathematics Research 5, 201-218 (2003)
 30. R. Cancelliere, A. Slavova, Dynamics and stability of generalized cellular nonlinear network model, Applied Mathematics and Computation 165 (1), 2005, 127-136 IF 0.688 Q2
 31. A. Slavova, M. Markova, WSEAS Transactions on Mathematics, 4(3), 2005, 212-217
 32. G. Agranovich, E. Litsyn, A. Slavova, Discrete-continuous control of bifurcation and oscillatory behavior in a class of Cellular Neural Networks, Neural, Parallel and Scientific Computations, 13 (3-4), 2005, 393-410 Q4
 33. A. Slavova, Dynamics and traveling waves in CNN vector disease model, IEEE Trans. CAS II: Express briefs, 53(11), 2006, 1304-1307
 34. A. Slavova, Hysteresis in CNN model of bacteria growth. Funct. Differ. Equ. 13, No. 1, 107-113 (2006)
 35. V. Mladenov, A. Slavova, On the periodic solutions in one dimensional cellular nonlinear networks on Josephson Junctions (JJ's), Proc. IEEE Int. Workshop on CNNA, 2006, 4145877
 36. A. Slavova, P. Zecca, Complex behavior of polynomial FitzHugh-Nagumo cellular neural network model, Nonlinear Analysis: Real World Applications, 8(4), 2007, 1331-1340 IF 1.232 Q1
 37. A. Slavova, M. Markova, Polynomial Lotka-Volterra CNN model. Dynamics and complexity, C.R.Acad. Bulg. Sci., 60(12), 2007, 1271-1276 IF 0.106
 38. P. Popivanov, A. Slavova, P. Zecca, Periodic solutions of the Burgers-Hopf equation with small parameter and its cellular neural networks model, Mediterranean J. of Mathematics, 5(1), 2008, 1-19 IF 0.357 Q4
 39. A. Slavova, Cellular neural networks model of risk management, Proc. IEEE Int. Workshop on CNNA, 4588674, 2008, 181-185
 40. A. Slavova, Reaction-diffusion Cellular Neural Network models, Artificial Intelligence series – WSEAS, 2008, 63-66
 41. P. Popivanov, A. Slavova, Smooth and nonsmooth solutions of several equations of mathematics physics and their cellular neural network realization, Lecture Notes in Computer Science, 5434 LNCS, 2009, 461-468
 42. P. Popivanov, A. Slavova, Peakons, cuspons, compactons, solitons, kinks and periodic solutions of several third order nonlinear PDE and their cellular neural network realization. Funct. Differ. Equ. 16, No. 4, 609-626 (2009).
 43. G. Agranovich, E. Litsyn, A. Slavova, Impulsive control of a hysteresis cellular

- neural network model, *Nonlinear analysis: Hybrid Systems*, 3(1), 2009, 65-73 SJR 1.66 Q1
44. P. Popivanov, A. Slavova, P. Zecca, Compact traveling waves and peakon type solutions of several equations of mathematical physics and their Cellular Neural Network realization, *Nonlinear analysis: Real World Applications*, 10(3), 2009, 1453-1465 IF 2.381 Q1
 45. P. Popivanov, A. Slavova, L. Zanghirati, *C.R.Acad.Bulg.Sci.*, 62(3), 2009, 303-314 IF 0.204 Q2
 46. A. Slavova, New wave profiles in viscoelastic Burgers'RTD-based cellular neural network model, *ECCTD 2009*, 5274971, 2009, 81-84
 47. A. Slavova, Cellular wave computing of fluxons and breidons, 12th Intern. Workshop on CNNA, CNNA2010, 5430255, 2010
 48. P. Popivanov, A. Slavova, P. Zecca, Regularizing property of the solutions of a dissipative semilinear wave equation, *C.R.Acad.Bulg.Sci.*, 63(7), 2010, 861-970 IF 0.219 Q2
 49. R. Cancelliere, M. Gai, A. Slavova, Application of polynomial cellular neural networks in diagnosis of astrometric chromaticity, *Applied Mathematical Modeling*, 34(12), 2010, 4243-4252 IF 1.371 Q1
 50. A. Slavova, V. Rashkova, Convection diffusion model for image processing, *C.R.Bulg.Acad.Sci.*, 64(3), 2011, 339-344 IF 0.210 Q2
 51. R. Agliardi, P. Popivanov, A. Slavova, Nonhypoellipticity and comparison principle for partial differential equations of Black Scholes type, *Nonlinear analysis: Real World Applications*, 12(3), 2011, 1429-1436 IF 2.043 Q1
 52. T. Melton, A. Slavova, Traveling wave solutions of FitzHugh-Nagumo CNN model with hysteresis, *C.R.Bulg.Acad.Sci.*, 64(5), 2011, 653-658 IF 0.210 Q2
 53. A. Slavova, V. Rashkova, A novel CNN based image processing model, *ECCTD 2011*, 6043323, 2011, 226-229
 54. R. Agliardi, P. Popivanov, A. Slavova, On some boundary-value problems for second order PDEs arising in finance, *C.R.Bulg.Acad.Sci.*, 64(10), 2011, 1383-1392 IF 0.210 Q2
 55. A. Slavova, R. Tetzlaff, M. Markova, CNN computing of the interaction of fluxons, *URSIGASS 2011*, 6050774
 56. A. Slavova, V. Rashkova, A novel PDE based image denoising model with applications in nanoindustry. *Math. Balk., New Ser.* 25, No. 3, 317-328 (2011).
 57. P. Popivanov, A. Slavova, Full classification of the traveling wave solutions of Fornberg-Whitham equation. Solutions into explicit form, *C.R.Bulg.Acad.Sci.*, 65(5), 2012, 563-574 IF 0.211 Q2
 58. R. Agliardi, P. Popivanov, A. Slavova, A general framework for some economic problems with uncertainty and exogenous barriers, *Economic Modeling*, 29(6), 2012, 2320-2324 IF 0.557 Q3
 59. P. Popivanov, A. Slavova, Rarefaction waves for quasilinear hyperbolic systems. Creation of δ - singularities to the Riemann problem, *C.R.Bulg.Acad.Sci.*, 65(10), 2012, 1325-1334 IF 0.211 Q2
 60. A. Slavova, P. Zecca, Traveling wave solution of polynomial cellular neural network model for Burgers-Huxley equation, *C.R.Bulg.Acad.Sci.*, 65(10), 2012, 1335-1342 IF 0.211 Q2

61. A. Slavova, P. Zecca, Cellular Neural Networks modeling of tsunami waves, Int. Workshop on CNNA, 2012, 6331405
62. A. Slavova, N. Kyurkchiev, On an implementation of Black-Scholes model for estimation of call- and put-option via programming environment Mathematics, C.R.Bulg.Acad.Sci., 66(5), 2013, 643-650 IF 0.198 Q2
63. G. Agranovich, E. Litsyn, A. Slavova, Stabilization of Fitzhugh-Nagumo CNN system. Funct. Differ. Equ. 20, No. 3-4, 141-155 (2013).
64. T. Rangelov, A. Slavova, Dynamic behavior of piezoelectric solid via CNN approach, C.R.Bulg.Acad.Sci., 66(6), 2013, 801-808 IF 0.198 Q2
65. A. Slavova, Stabilization of coupled reaction-diffusion CNN, ECCTD 2013, 6662311
66. P. Popivanov, A. Slavova, On Ventcel's type boundary condition for Laplace operator in a sector, J. of Geometry and Symmetry in Physics, 31, 2013, 119-130 SJR 0.17 Q4
67. A. Slavova, N. Kyurkchiev, C.R.Bulg.Acad.Sci., 67(8), 2014, 1053-1060 IF 0.284 Q3
68. A. Slavova, R. Tetzlaff, CNN computing of double Sine-Gordon equation with physical applications, C.R.Bulg.Acad.Sci., 67(1), 2014, 21-28 IF 0.284 Q3
69. A. Slavova, P. Zecca, Pietro, Applications of equations of mathematical physics in studying Tsunami waves. PLISKA, Stud. Math. Bulg. 23, 159-174 (2014).
70. A. Slavova, N. Kyurkchiev, Programme packages for implementation of modifications of Black-Scholes model and web applications. PLISKA, Stud. Math. Bulg. 23, 141-158 (2014).
71. A. Slavova, N. Kyurkchiev, On a hypothetical model of modified Black-Scholes equation with dividends, C.R.Bulg.Acad.Sci., 68(4), 2015, 431-436 IF 0.233 Q3
72. A. Slavova, M. Markova, CNN modeling of nano-structures, ECCTD 2015, 7300116
73. A. Slavova, M. Markova, CNN modelling of nano-inclusions. PLISKA, Stud. Math. 25, 183-192 (2015).
74. A. Slavova, N. Kyurkchiev, On an implementation of α -subordinated Brownian motion and option pricing with and without transaction costs via CAS MATHEMATICA. PLISKA, Stud. Math. 25, 175-182 (2015).
75. E. Litsyn, P. Popivanov, A. Slavova, On a nonstandard boundary value problem for the Laplace operator. Funct. Differ. Equ. 22, No. 3-4, 137-147 (2015).
76. A. Slavova, G. Bobeva, Local Activity of CNN with Dynamic Memory Synapses, C.R.Bulg.Acad.Sci., 69(11), 2016, 1401-1406, ISSN: 1310-1331, IF 0.251 Q3
77. A. Slavova, G. Bobeva, Local Activity in Reaction-Diffusion CNN with Memristor Synapses, Int. Workshop CNNA2016, 2016, 87-88 ISBN: 978-3-8007-4252-3
78. A. Slavova, V. Ignatov, CNN Computing of Piezoelectric Solid with Nano-Holes under Time-Harmonic Anti-Plane Load, Int. Workshop on CNNA2016, 81-82 ISBN: 978-3-8007-4252-3
79. A. Slavova, R. Tetzlaff, Dynamics of hysteresis CNN with memristor synapses. PLISKA, Stud. Math. 26, 203-214 (2016).
80. E. Litsyn, A. Slavova, Control of chaotic behavior of integro-differential CNN model arising in piezoelectric material with nano-heterogeneities. PLISKA, Stud. Math. 26, 143-154 (2016).

80. A. Slavova, R. Tetzlaff, Edge of Chaos in Reaction Diffusion CNN Model, *Open Mathematics*, 15(1), 2017, 21-29 ISSN: 2391-5455, IF 0.831 Q2
81. E. Litsyn, A. Slavova, Dynamic behavior of integro-differential boundary-value Problem via Cellular Nanoscale Network approach, *C.R.Bulg.Acad.Sci.*, 70(6), 2017, 753-760 IF 0.270 Q2
82. A. Slavova, G. Bobeva, Determination of edge of chaos in hysteresis CNN model with memristor synapses, *ECCTD 2017*, 8093294
83. A. Slavova, V. Ignatov, Dynamics of CNN model of piezoelectric solids with nano-heterogeneities, *ECCTD 2017*, 8093325
84. A. Slavova, N. Kyurkchiev, On CNN model of Black Scholes equation with Leland correction, *C.R.Bulg.Acad.Sci.*, 71(2), 2018, 169-175 IF 0.321 Q2
85. A. Slavova, G. Bobeva, On cellular nanoscale network model arising in nano structures, *C.R.Bulg.Acad.Sci.*, 71(7), 2018, 955-961 IF 0.321 Q2
86. A. Slavova, Z. Zafirova, Modeling and simulation of interaction of fluxons via CNN, *ANNA 2018*, 48-52
87. A. Slavova, G. Bobeva, Edge of chaos regime for CNN with dynamic memory synapses, *ANNA 2018*, 40-43
88. A. Slavova, R. Tetzlaff, M. Markova, Local activity in memristor-based chaotic system model. *PLISKA, Stud. Math.* 29, 139-150 (2018).
89. A. Slavova, G. Bobeva, Edge of chaos in reaction-diffusion CNN models. *PLISKA, Stud. Math.* 29, 127-138 (2018).
90. A. Slavova, Z. Zafirova, Dynamic behavior of integro-differential CNN model, *AIP Conference Proceedings 2048*, 2018, 060002 SJR 0.18
91. A. Slavova, Z. Zafirova, R. Tetzlaff, Edge of chaos in nanoscale memristor CNN, *Proceedings- IEEE ISCAS 2019*, 8702436
92. A. Slavova, R. Tetzlaff, Memristor CNNs with hysteresis, *Studies in Computational Intelligence, Springer Series*, 793, 2019, 383-394 SJR 0.19 Q4
93. P. Popivanov, A. Slavova, Explicit formulas to solutions of the nonlinear Schrodinger equation with power and logarithmic type nonlinearities, *C.R.Bulg.Acad.Sci.*, 72(3), 2019, 283-291 IF 0.343 Q2
94. A. Slavova, P. Popivanov. Regularity and solvability of pseudo-differential operators with double characteristics. *Mediterranean Journal of Mathematics*, 16, 5, Springer, 2019, ISSN:1660-5446, DOI:10.1007/s00009-019-1396-9, 121. JCR-IF (Web of Science):1.181 Q1
95. A. Slavova, Z. Zafirova. Dynamics of viscoelastic Burgers' cellular neural networks model. *AIP Conference Proceedings*, 2159, AIP, 2019, ISBN:978-0-7354-1904-9, DOI:10.1063/1.5127496, 030031. SJR (Scopus):0.18
96. A. Slavova. Local activity in reaction-diffusion CNN models. *AIP Conference Proceedings*, 2159, AIP, 2019, ISBN:978-0-7354-1904-9, DOI:10.1063/1.5127495, 030030. SJR (Scopus):0.18
97. G. Agranovich, E. Litsyn, A. Slavova, Dynamical behavior of integro-differential boundary value problem arising in nano-structures via Cellular nanoscale Network approach, *J. Computational and Applied Mathematics*, 352, Elsevier, 2019, ISSN:0377-0427, DOI:<https://doi.org/10.1016/j.cam.2018.11.024>, 62-71. SJR (Scopus):0.849, JCR-IF (Web of Science):1.883 Q1

98. A. Slavova, R. Tetzlaff, Mathematical Analysis of Memristor CNN, in: Memristors - Circuits and Applications of Memristor Devices, InTech, 2019
99. A. Slavova, Memristor CNN Model for Image Denoising, 2019 26th IEEE International Conference on Electronics, Circuits and Systems (ICECS), IEEE Explore, 2019
100. A. Slavova, Z. Zafirova. Harmonic balance method for studying CNN model of differential equations. AIP Conference Proceedings, 2172, AIP, 2019, ISBN:978-0-7354-1919-3, DOI:10.1063/1.5133502, 030013. SJR (Scopus):0.18
101. A. Slavova, Z. Zafirova, Zoya, P. Zecca, CNN modeling of a class of integro-differential equations. PLISKA, Stud. Math. 30, 171-184 (2019).
102. A. Slavova, G. Bobeva, Dynamics of PEM with nano-inhomogeneities via cellular nanoscale networks. PLISKA, Stud. Math. 30, 157-170 (2019)
103. P. Popivanov, A. Slavova, Explicit solutions of the hyperbolic Monge-Ampere type equation, of a nonlinear evolution system and their qualitative properties, C.R. Bulg. Acad. Sci., 73(6), 2020, 767-775 IF 0.343 Q2
104. P. Popivanov, A. Slavova, Exact formulas to the solutions of several generalizations of the nonlinear Schrödinger equation. Boggiatto, Paolo (ed.) et al., Advances in microlocal and time-frequency analysis. Contributions of the conference on microlocal and time-frequency analysis 2018, MLTFA18, in honor of Prof. Luigi Rodino on the occasion of his 70th birthday, Torino, Italy, July 2–6, 2018. Cham: Birkhäuser. Appl. Numer. Harmon. Anal., 419-429 (2020) SJR 0.13 Q4
105. A. Slavova, P. Popivanov. Explicit solutions of some equations and systems of mathematical physics. Advances in Difference Equations, 2020, 592, Springer, 2020, ISSN:1687-1847, DOI:<https://doi.org/10.1186/s13662-020-03031-y>, 284-298. SJR (Scopus):0.677, JCR-IF (Web of Science):2.421 Q1
106. A. Slavova, V. Ignatov, Universal Cellular Computing on the Edge of Chaos, 2021 10th International Conference on Modern Circuits and Systems Technologies (MOCASST), IEEE Explore, 2021
107. A. Slavova, R. Tetzlaff, Edge of Chaos in Memristor CNN with Hysteresis and Applications in Pattern Formation, 2021 IEEE International Symposium on Circuits and Systems (ISCAS), IEEE Explore, 2021
108. A. Slavova, P. Popivanov. Degenerate Hyperbolic Operators which are not Locally Solvable and do not Propagate Singularities. AIP Conference Proceedings, AIP, 2021, SJR (Scopus):0.19
109. A. Slavova, E. Litsyn. Stabilizing Control of Integro-Differential CNN Model Arising in Nanostructures. AIP Conference Proceedings, AIP, 2021, SJR (Scopus):0.19
110. A. Slavova, V. Ignatov, Pattern Formation in CNN Working on the Edge of Chaos, 2021 17th International Workshop on Cellular Nanoscale Networks and their Applications (CNNA), IEEE Explore, 2021
111. P. Popivanov, A. Slavova, Short Proofs of Explicit Formulas to Boundary Value Problems for Polyharmonic Equations Satisfying Lopatinskii Conditions, Mathematics, Volume 10, Issue 23 December 2022 Article number 4413, DOI 10.3390/math10234413, JCR-IF (Web of Science):2.591 Q1

112. A. Slavova A., V.Ignatov, Edge of Chaos in Memristor Cellular Nonlinear Networks, Mathematics, Volume 10, Issue 8April-2 2022 Article number 1288, DOI 10.3390/math10081288, JCR-IF (Web of Science):2.591 Q1
113. P. Popivanov, A. Slavova, Explicit solutions and geometric visualization of the solutions of several classes of nonlinear Schrödinger equations arising in physics, AIP Conference Proceedings, vol. 2459, Article 0300308, 2022, SJR 0.19
114. A. Slavova, V. Ignatov, Local activity in reaction-diffusion equations and pattern formation, AIP Conference Proceedings, vol. 2459, Article 030033, 2022, SJR 0.19
115. P. Popivanov, A. Slavova, Radial and non-radial solutions for local and non-local Liouville type equations, AIP Conference Proceedings, Article 030042, 2022, SJR 0.19
116. A. Slavova, Cellular Nonlinear Computing on the Edge of Chaos, Mathematics in Industry, Springer Proc. Math. And Stat., Volume 39, Pages 197 – 201,2022, SJR 0.20
117. A. Slavova, V. Ignatov, Bioinspired Cellular Nonlinear Networks working on the edge of chaos, IEEE, MOCAST 2022, DOI: 10.1109/MOCAST54814.2022.9837595
118. A. Slavova, E. Litsyn, Edge-of-Chaos in CNN Models with Memristor Synapses, Memristor Computing Systems, Springer, pp. 3-20, 2022
119. A. Slavova, Dynamical Behaviour of Integro-Differential Equations Arising in Nano-Structures, Functional Differential Equations and Applications, Springer Proc. Math. And Stat., pp. 3-14, 2022, DOI: 10.1007/978-981-16-6297-3_1, SJR 0.20
120. A. Slavova, V. Ignatov, Cellular Neural Networks computing of EEG signals, CompSysTech '23: International Conference on Computer Systems and Technologies 2023, ACM Proceedings, 2023, SJR 0.2
121. A. Slavova, V. Ignatov, Memristor Cellular Nonlinear Networks, Mathematics 11(7):1601, 2023, IF 2.4, Q1
122. A. Slavova, V. Ignatov, Cellular Nonlinear Network Circuit Model with Application to Seizures Prediction, 12th International Conference on Modern Circuits and Systems Technologies (MOCAST), IEEE Explorer,2023
123. A. Slavova, R. Tetzlaff, Memory computing on the edge of chaos, Advanced Computing in Industrial Mathematics, Springer 2023, pp. 133-144, SJR 0.184 Q4
124. P. Popivanov, A. Slavova, Boundary Value Problems for the Polyharmonic Operators, New Trends in the Applications of Differential Equations in Sciences, Springer Proc. Math. And Stat., 2023, pp. 35-50, DOI: 10.1007/978-3-031-21484-4_4, SJR 0.20
125. P. Popivanov, A. Slavova, Several Properties of the Solutions of Linear and Semilinear Harmonic and Polyharmonic Equations, New Trends in the Applications of Differential Equations in Sciences, Springer Proc. Math. And Stat., 2023, pp. 153-162, DOI: 10.1007/978-3-031-21484-4_14, SJR 0.20
126. P. Popivanov, A. Slavova, Graphical Portraits of the Solutions of Binary First Order Nonlinear Ordinary Differential Equation Near Their Singular Point,

- Springer Proc. Math. And Stat, vol.449, 2024, pp. 21-34, SJR 0.19
127. A. Slavova, E. Litsyn, Physics Informed Cellular Neural Networks for Solving Partial Differential Equations, Springer Proc. Math. And Stat, vol. 449, 2024, pp. 35-46, SJR 0.19
 128. P. Popivanov, A. Slavova, Robin Boundary Value Problem for Some Nonlinear Nonlocal Elliptic Partial Differential Equations, Springer Proc. Math. And Stat, vol. 449, 2024, pp. 77-94, SJR 0.19
 129. A. Slavova, V. Ignatov, Edge of Chaos in Reaction-Diffusion System with Memristor Synapses, Springer Proc. Math. And Stat., vol. 449, 2024, pp. 407-418, SJR 0.19
 130. P. Popivanov, A. Slavova, Some Non-Linear Evolution Equations and Their Explicit Smooth Solutions with Exponential Growth Written into Integral Form, March 2024, Mathematics 12(7):1003 IF 2.4 Q1