

**Цитирания на научни трудове (без автоцитати) в научни публикации и в патенти за изобретения у нас и в чужбина на проф. дмн Анжела Славова Попиванова за участие в конкурса По Scopus, WoS, Google Scholar и от дисертации**

1993

1. Slavova A., *Dynamic properties of cellular neural networks*, J .Appl. Math. and Stoch. Anal., 1993; 6:2:107-116.

Цитира се в:

1. Г. Бобева, Приложение на метода на локалната активност за изследване динамиката на нелинейни Клетъчно Невронни Мрежи, дисертация, 2021

1995

2. Slavova A., *Periodic solutions of nonlinear dynamical system describing Cellular Neural Networks* , Proc. of Neural, Parallel and Scientific Computations, Atlanta, GA, vol. 1, 1995, 431-433.

Цитира се в:

2. Г. Бобева, Приложение на метода на локалната активност за изследване динамиката на нелинейни Клетъчно Невронни Мрежи, дисертация, 2021

3. Slavova, A., *Cellular neural networks with nonlinear dynamics*. J. Neural, Parallel, and Scientific Computations., 1995, 3:3:369-379.

Цитира се в:

3. Г. Бобева, Приложение на метода на локалната активност за изследване динамиката на нелинейни Клетъчно Невронни Мрежи, дисертация, 2021

1996

4. Slavova A., *Stability analysis of CNN with hysteresis nonlinearity in the feedback system*, Proc. CNNA96, Sevilla, Spain, 175-180, 1996.

Цитира се в:

4. Г. Бобева, Приложение на метода на локалната активност за изследване динамиката на нелинейни Клетъчно Невронни Мрежи, дисертация, 2021

1998

5. Slavova, A., *Dynamic properties of cellular neural networks with nonlinear output function*, *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications* 45(5), pp. 587-590, 1998

Цитирана се в:

6. Peng, J., Zhang, D., Image encryption and chaotic cellular neural network ( Book Chapter), *Machine Learning in Cyber Trust: Security, Privacy, and Reliability* pp. 183-213, 2009

7. Yokosawa, K., Nakaguchi, T., Tanji, Y., Tanaka, M., Cellular neural networks with output function having multiple constant regions, *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, 50(7), pp. 847-857, 2003

8. Liao, X., Wong, K.-W., Yu, J., Novel stability conditions for cellular neural networks with time delay, *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, 11(7), pp. 1853-1864, 2001

7. Slavova, A., *Generalization of CNN with hysteresis nonlinearity*, *Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications* pp. 56-61, 1998

Цитирана се в:

9. Song, G., Chaudhry, V., Batur, C., A neural network inverse model for a shape memory alloy wire actuator, *Journal of Intelligent Material Systems and Structures*, 14(6), pp. 371-377, 2003

10. Song, G., Chaudhry, V., Batur, Precision tracking control of shape memory alloy actuators using neural networks and a sliding-mode based robust controller, *Smart Materials and Structures*, 12(2), pp. 223-231, 2003

11. Song, G., Chaudhry, V., Batur, C., Neural Network Tracking Control of a Shape Memory Alloy Wire Actuator without a Position Sensor, *American Society of Mechanical Engineers, Aerospace Division (Publication) AD*, 64, pp. 327-333, 2001

1999

8. Slavova, A., *Modeling nonlinear waves and PDEs via cellular neural networks*, *Annali dell'Universita di Ferrara*, 45(1), 1999, 311-326

Цитирана се в:

12. Aein, M. J.; Talebi, H. A., Introducing a Training Methodology for Cellular Neural Networks with Application to Mechanical Vibration Problem, 2009 IEEE CONTROL APPLICATIONS CCA & INTELLIGENT CONTROL (ISIC), VOLS 1-3 Book Series: IEEE International Conference on Control Applications Pages: 1661-+ Published: 2009

13. Aein, M. J.; Talebi, H. A., Introducing a Training Methodology for Cellular Neural Networks Solving Partial Differential Equations, IJCNN: 2009 INTERNATIONAL JOINT CONFERENCE ON NEURAL NETWORKS, VOLS 1- 6 Book Series: IEEE International Joint Conference on Neural Networks (IJCNN) Pages: 2729-+ Published: 2009

2000

9. Slavova, A.. *Applications of some mathematical methods in the analysis of cellular neural networks. Journal of Computational and Applied Mathematics*, 144, 2, Elsevier, 2000, ISSN:0377-0427, 387-404. ISI IF:1.231

*Цитупа се в:*

14. L Yang, H Yu. "Data Structure For CNN Based Digital Integrated Circuit For Extracting Features Out Of An Input Image", US Patent App. 15/289, 733, 2018

15. L Yang, H Yu. "Digital integrated circuit for extracting features out of an input image based on cellular neural networks", US Patent 9, 940, 534, 2018

16. Gu, Y., Wang, H., Yu, Y. "Stability and synchronization for Riemann-Liouville fractional-order time-delayed inertial neural networks". *Neurocomputing*. 340, 270-280

17. Skrzypek, L., Phan, C., You, Y. " Exponential Synchronization of 2D Cellular Neural Networks with Boundary Feedback". arXiv:2009.04848, 2020

18. Skrzypek, L., You, Y. "Feedback Synchronization of FHN Cellular Neural Networks", *Discrete and Continuous Dynamical Systems-B*, doi: 10.3934/dcdsb.2021001, 2020

19. Fressengeas, N., Frezza-Buet, H., Cellular computing and least squares for partial differential problems parallel solving, *Journal of Cellular Automata* 9(1), pp. 1-21, 2014

20. Zhang, Z.-C., Xia, S.-R., Duan, H.-L., Cellular neural network based urinary sediment image segmentation, *Zhejiang Daxue Xuebao (Gongxue Ban)/Journal of Zhejiang University (Engineering Science)*, 42(12), pp. 2139-2144, 2008

21. Zhang, Z., Xia, S., Duan, H., Cellular neural network based urinary image segmentation, *Proceedings - Third International Conference on Natural Computation, ICNC 2007*, 2, 4304563, pp. 285-289, 2007

22. Wilbik, A., Cellular neural networks for color image segmentation, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 3696 LNCS, pp. 525-530, 2005

23. Shuai, D.-X., Feng, X., Zhao, H.-B., Wang, X., Architecture and circuital implementation scheme of a new generalized cellular automata, Jisuanji Xuebao/Chinese Journal of Computers, 27(11), pp. 1441-1450, 2004
24. L Yang, H Yu, Digital integrated circuit for extracting features out of an input image based on cellular neural networks - US Patent 9,940,534, 2018
25. L Yang, PZ Dong, CJ Young, JZ Dong , Object detection and recognition apparatus based on CNN based integrated circuits - US Patent ..., 2019
26. L Yang, H Yu, Data structure for CNN based digital integrated circuit for extracting features out of an input image - US Patent 10,043,095, 2018
27. L Yang, PZ Dong, CJ Young, B Sun, Implementation of ResNet in a CNN based digital integrated circuit - US Patent 10,339,445, 2019
28. L Yang, PZ Dong, B Sun, Hierarchical category classification scheme using multiple sets of fully-connected networks with a CNN based integrated circuit as feature extractor - US Patent 10,366,302, 2019
29. L Yang, PZ Dong, CJ Young, J Dong, W Zhang..., Image classification systems based on CNN based IC and light-weight classifier - US Patent ..., 2019
30. N Fressengeas, H Frezza-Buet, Generic method for solving partial differential equations through the design of problem-specific cellular neural networks- arXiv preprint math-ph ..., 2006 - hal.archives-ouvertes.
31. L Yang, PZ Dong, JZ Dong, B Sun, Approximating fully-connected layers with multiple arrays of 3x3 convolutional filter kernels in a CNN based integrated circuit - US Patent 10,366,328, 2019
32. L Yang, PZ Dong, JZ Dong, B Sun, Implementation of MobileNet in a CNN based digital integrated circuit - US Patent 10,360,470, 2019
33. L Yang, PZ Dong, C Chi, CJ Young, JZ Dong..., Natural language translation device - US Patent ..., 2018
34. L Yang, PZ Dong, B Sun, Motion recognition via a two-dimensional symbol having multiple ideograms contained therein - US Patent 10,311,294, 2019
35. L Yang, PZ Dong, CJ Young, JZ Dong, M Lin..., Ensemble learning based image classification systems - US Patent ..., 2019
36. L Yang, PZ Dong, CJ Young, JZ Dong, DB Liu..., Artificial intelligence inference computing device - US Patent ..., 2019
37. L Yang, PZ Dong, B Sun, Deep learning device for local processing classical chinese poetry and verse - US Patent 10,417,342, 2019
38. L Yang, PZ Dong, B Sun, Two-dimensional symbol for facilitating machine learning of combined meaning of multiple ideograms contained therein - US Patent 10,445,568, 2019
39. S Mohamad, Exponential Convergence Analysis of DCNNs having Unbounded Activations and Inhibitory Self-Connections, Aspects of Mathematical Modelling, Springer pp 249-267, 2008

40. L Yang, PZ Dong, B Sun, Motion recognition via a two-dimensional symbol having multiple ideograms contained therein - US Patent 10,325,147, 2019

41. L Yang, PZ Dong, CJ Young, JZ Dong, M Lin..., Ensemble learning based image classification systems - US Patent ..., 2019

42. L Yang, PZ Dong, B Sun, Motion recognition via a two-dimensional symbol having multiple ideograms contained therein - US Patent 10,275,646, 2019

43. М. Маркова, Изследване на динамиката на модели Клетъчно Невронни Мрежи възникващи в биологията и екологията, дисертация, 2013

44. Виктория Рашкова, Изследване на динамичното поведение на Клетъчно Невронни Модели с приложения в разпознаване и обработка на образи, дисертация, 2012

2001

*10.Slavova, A., Stability analysis of cellular neural networks with nonlinear dynamics, Nonlinear Analysis: Real World Applications, 2(1), pp. 93-103,2001*

*Цитира се в:*

45. Wang, D., Wang, Y., Stability conditions of delayed recurrent neural networks with positive linear activation functions, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 5551 LNCS(PART 1), pp. 286-294, 2009

46. Lou, X., Cui, B., Global exponential stability for reaction-diffusion recurrent neural networks with multiple time-varying delays, Arabian Journal for Science and Engineering, 33(2 B), pp. 487-501, 2008

47. Liao, W., Wang, D., Xu, Y., Liao, X., Delay-dependent and delay-independent stability conditions of delayed cellular neural networks, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 4232 LNCS, pp. 529-536, 2006

2003

*11.Slavova,A., Zecca,P.. CNN model for studying dynamics and travelling wave solutions of FitzHugh-Nagumo equation. Journal of Computational and Applied Mathematics, 151, 1, Elsevier, 2003, ISSN:0377-0427, 13-24. ISI IF:1.266*

*Цитира се в:*

48. Leseduarte, M.C. , Quintanilla, R. On the asymptotic spatial behaviour of the solutions of the nerve system Asymptotic Analysis Volume 91, Issue 3-4, 2015, Pages 185-203

49. Shekarabi, H.S., Aqamohamadi, M., Rashidinia, J. "Tension spline method for solution of Fitzhugh–Nagumo equation".Transactions of A. Razmadze Mathematical Institute 172(3), pp. 571-581, 2018

50. Zhou, H., Sheng, Z., Yuan, G. "Physical-bound-preserving finite volume methods for the Nagumo equation on distorted meshes". Computers and Mathematics with Applications, 2018
51. Hariharan, G. "Two Reliable Wavelet Methods to Fitzhugh–Nagumo (FN) and Fractional FN Equations". Forum for Interdisciplinary mathematics. 135-146, DOI: 10.1007/978-981-32-9960-3\_9,
52. Zhou, H., Sheng, Z., Yuan, G. "Physical-bound-preserving finite volume methods for the Nagumo equation on distorted meshes". Computers and Mathematics with Applications. 77(4), 1055-1070, DOI: 10.1016/j.camwa.2018.10.038, 2019
53. Hariharan, G., Kannan, K., Review of wavelet methods for the solution of reaction-diffusion problems in science and engineering, Applied Mathematical Modelling, 38(3), pp. 799-813, 2014
54. Fressengeas, N., Frezza-Buet, H., Cellular computing and least squares for partial differential problems parallel solving, Journal of Cellular Automata, 9(1), pp. 1-21, 2014
55. Hariharan, G., Kannan, K., Haar wavelet method for solving FitzHugh-Nagumo equation, World Academy of Science, Engineering and Technology, 67, pp. 560-564, 2010
56. Ma, J., Wang, C.-N., Jin, W.-Y., Li, Y.-L., Pu, Z.-S., Stabilization of spiral wave and turbulence in the excitable media using parameter perturbation scheme, Chinese Physics B, 17(8), pp. 2844-2849, 2008
57. Browne, P., Momoniat, E., Mahomed, F.M., A generalized Fitzhugh-Nagumo equation, Nonlinear Analysis, Theory, Methods and Applications, 68(4), pp. 1006-1015, 2008
58. Tuckwell, H.C., Analytical and simulation results for the stochastic spatial Fitzhugh-Nagumo model neuron, Neural Computation, 20(12), pp. 3003-3033, 2008
59. Alford, J.G., Auchmuty, G., Rotating wave solutions of the FitzHugh-Nagumo equations, Journal of Mathematical Biology, 53(5), pp. 797-819, 2006
60. JR Branco, JA Ferreira, Integro-differential IBVP versus differential IBVP: stability analysis - Pré-Publicações DMUC, 2009 - estudogeral.sib.uc.pt
61. N Fressengeas, H Frezza-Buet, Generic method for solving partial differential equations through the design of problem-specific cellular neural networks - arXiv preprint math-ph ..., 2006 - hal.archives-ouvertes
62. М. Маркова, Изследване на динамиката на модели Клетъчно Невронни Мрежи възникващи в биологията и екологията, дисертация, 2013
63. Виктория Рашкова, Изследване на динамичното поведение на Клетъчно Невронни Модели с приложения в разпознаване и обработка на образи, дисертация, 2012
12. Slavova, A.. *Cellular Neural Networks: Dynamics and Modelling*. Kluwer Academic Publishers, 2003, ISBN:978-1-4020-1192-4, 220

*Цитира се в:*

64. C Qiao, D Liang, K Sun, Dynamics analysis for generic projection continuous-time RNNs with bounded matrices, *Journal of Systems Science and Complexity* - Springer, 2015
65. C Qiao, HB Chen, WF Jing, KF Sun, Towards establishing a meaningful and practical dynamics results for the unified RNN model, *Neurocomputing*, 2015 – Elsevier doi:10.1016/j.neucom.2014.12.007, 2015
66. Forti, Mauro; Garay, Barnabas; Koller, Miklos; et al. "Long Transient Oscillations in a Class of Cooperative Cellular Neural Networks". *International Journal of Circuit Theory and Applications*, vol.43, issue 5, pp. 635-655, 2015
67. M Agop, A Gavrilut, G Crumpei, M Craus, Brain dynamics through spectral-structural neuronal networks, 2015 - arxiv.org, 2015
68. Qiao, Chen; Jing, Wen-Feng; Fang, Jian; et al., The general critical analysis for continuous time UPPAM recurrent neural networks, *NEUROCOMPUTING*, vol. 175, pp. 40-46, Part:A, 2016
69. Kyurkchiev, Nikolaj." ON THE NUMERICAL SOLUTION OF THE GENERAL "LIGAND-GATED NEURORECEPTORS MODEL" VIA CAS MATHEMATICA", *PLISKA Studia Math.*, 26, 2016, pp. 133-142, 2016
70. ГОРБАЧЕНКО В.И., КАТКОВ С.Н. "5. "РЕШЕНИЕ ДИФФЕРЕНЦИАЛЬНЫХ УРАВНЕНИЙ В ЧАСТНЫХ ПРОИЗВОДНЫХ НА МЕМРИСТОРНЫХ СЕТЯХ". МАТЕМАТИЧЕСКОЕ И КОМПЬЮТЕРНОЕ МОДЕЛИРОВАНИЕ ЕСТЕСТВЕННО-НАУЧНЫХ И СОЦИАЛЬНЫХ ПРОБЛЕМ, 266-275 , 2016
71. Горбаченко, В., Катков С. "Мемристорные клеточные сети для решения краевых задач", *Информационные технологии*, т.23, №4, 2017, 266-273, 2017
72. Abimbola Latifat A. "Effect of Impulsive Perturbations in Controlling Stability Properties of Neural Networks", *Applied Mathematical Sciences*, Vol. 12, 2018, no. 10, 495 - 504, 2018,
73. Z Yu, XQ Zhao. "Propagation phenomena for CNNs with asymmetric templates and distributed delays", *Discrete & Continuous Dynamical Systems-A*, 2018
74. Pavlov, V."A conceptual framework of the first bachelor programme in financial mathematics in Bulgaria". *AIP Conference proceedings*, 2159, 030026, DOI: 10.1063/1.5127491, 2019
75. Stoyanov, P. "Cellular neural networks and their applications". *AIP Conference Proceedings* 2159, 030034, DOI: 10.1063/1.5127499, 2019
76. Zhang, J., Chauhan, S. "Neural network methodology for real-time modelling of bio-heat transfer during thermo-therapeutic applications". *Artificial Intelligence in Medicine*. 101, 101728, DOI: 10.1016/j.artmed.2019.101728, 2019
77. Kireeva, A.V., Tarasova, T.A., Kalinin, Y. V. "On including the CA in polyimides polymerization modeling". 2020 4th Scientific School on Dynamics of Complex Networks and their Application in Intellectual Robotics (DCNAIR), 2020
78. Skrzypek, L., Phan, C., You, Y. Exponential Synchronization of 2D Cellular Neural Networks with Boundary Feedback, arXiv:2009.04848, 2020
79. Skrzypek, L., You, Y. "Feedback Synchronization of FHN Cellular Neural Networks", *Discrete and Continuous Dynamical Systems-B*, doi: 10.3934/dcdsb.2021001, 2020

80. JL Bueso, J Gómez-Torrecillas, A Verschoren, Algorithmic methods in non-commutative algebra: Applications to quantum groups, Kluwer, 2013
81. Alberto Faro, Daniela Giordano, and Concetto Spampinato, Evaluation of the Traffic Parameters in a Metropolitan Area by Fusing Visual Perceptions and CNN Processing of Webcam Images, IEEE TRANSACTIONS ON NEURAL NETWORKS, VOL. 19, NO. 6, JUNE 2008
82. A Dishliev, K Dishlieva, S Nenov, Specific asymptotic properties of the solutions of impulsive differential equations. Methods and applications, Academic Publications, 2012
83. Yongmin Zhong, Bijan Shirinzadeh, Gursel Alici, and Julian Smith, A Cellular Neural Network Methodology for Deformable Object Simulation, IEEE TRANSACTIONS ON INFORMATION TECHNOLOGY IN BIOMEDICINE, VOL. 10, NO. 4, OCTOBER 2006 749
84. Y Zhong, B Shirinzadeh, J Smith, C Gu, An electromechanical based deformable model for soft tissue simulation, Artificial intelligence in medicine, Elsevier, Volume 47, Issue 3, November 2009, Pages 275-288, 2009
85. Y Zhong, B Shirinzadeh, G Alici, J Smith, An autowave based methodology for deformable object simulation, Computer-Aided Design, Volume 38, Issue 7, July 2006, Pages 740-754, 2006
86. Yongmin Zhong, Bijan Shirinzadeh, Gursel Alici, Julian Smit, Soft tissue modelling through autowaves for surgery simulation, Med Bio Eng Comput 44:805–821, DOI 10.1007/s11517-006-0084-7, 2006
87. C Qiao, Z Xu, On the P-critical dynamics analysis of projection recurrent neural networks, Neurocomputing, Neurocomputing, Volume 73, Issues 13–15, August 2010, Pages 2783-2788
88. MJ Aein, HA Talebi, Introducing a training methodology for cellular neural networks solving partial differential equations, Proceedings of International Joint Conference on Neural Networks, Atlanta, Georgia, USA, June 14-19, 2009 - [ieeexplore.ieee.org](http://ieeexplore.ieee.org)
89. C Qiao, Z Xu, A critical global convergence analysis of recurrent neural networks with general projection mappings, Neurocomputing, Elsevier, Volume 72, Issues 7–9, March 2009, Pages 1878-1886
90. C Qiao, W Jing, Z Xu, The UPPAM continuous-time RNN model and its critical dynamics study, Neurocomputing, Elsevier, Volume 106, 15 April 2013, Pages 158-166
91. VD Thai, PT Cat, Modelling air-pollution problem by cellular neural network, 2008 10th Intl. Conf. on Control, Automation, Robotics and Vision Hanoi, Vietnam, 17–20 December 2008- [ieeexplore.ieee.org](http://ieeexplore.ieee.org)
92. Y Zhong, B Shirinzadeh, G Alici..., Cellular neural network based deformation simulation with haptic force feedback, 9th IEEE International Workshop on Advanced Motion Control, 2006 - [ieeexplore.ieee.org](http://ieeexplore.ieee.org)
93. DT Vu, TC Pham, Solving two-dimensional Saint venant equation by using cellular neural network, Proceedings of the 7th Asian Control Conference, Hong Kong, China, August 27-29, 2009 - [ieeexplore.ieee.org](http://ieeexplore.ieee.org)
94. VD Thai, PT Cat, Equivalence and stability of two-layered cellular neural network solving saint venant id equation, 2010 11th International Conference on Control Automation Robotics & Vision, 2010- [ieeexplore.ieee.org](http://ieeexplore.ieee.org)



95. Y Zhong, B Shirinzadeh, G Alici..., Simulation of deformable models with the Poisson equation, Computer Methods in Biomechanics and Biomedical Engineering, Volume 9, 2006 - Issue 5, 2006 - Taylor & Francis
96. W Zhou, JM Zurada, A competitive layer model for cellular neural networks, Neural Networks, Volume 33, September 2012, Pages 216-227, 2012 – Elsevier
97. Y Zhong, B Shirinzadeh, G Alici..., Haptic deformation simulation with Poisson equation, International Journal of Image and Graphics Vol. 06, No. 03, pp. 445-473, 2006 - World Scientific
98. Y Zhong, B Shirinzadeh, J Smith, Reaction-diffusion based deformable object simulation, International Journal of Image and Graphics, Vol. 08, No. 02, pp. 265-280, 2008 - World Scientific
99. ЕБ Соловьева, Рекуррентные нейронные сети в качестве моделей нелинейных динамических систем - сети, 2018 - dspa.ru УДК 004.032.26 «Цифровая обработка сигнала»
100. MJ Aein, HA Talebi, Introducing a training methodology for cellular neural networks with application to mechanical vibration problem, 18th IEEE International Conference on Control Applications Part of 2009 IEEE Multi-conference on Systems and Control Saint Petersburg, Russia, July 8-10, 2009 - [ieeexplore.ieee.org](http://ieeexplore.ieee.org)
101. X Chen, H Mao, C Qiao, Without diagonal nonlinear requirements: The more general-critical dynamical analysis for UPPAM recurrent neural networks, Mathematical Problems in Engineering, 2013 - [hindawi.com](http://hindawi.com)
102. NQ Hoan, NT Tuyen, DD Anh, ARCHITECTURE AND STABILITY OF THE SECOND-ORDER CELLULAR NEURAL NETWORKS, Vol. 27 (2020): UTEHY Journal of Science and Technology, 2020 - [tapchi.utehy.edu.vn](http://tapchi.utehy.edu.vn)
103. Y Zhong, B Shirinzadeh, X Yuan, G Alici..., A cellular neural network for deformable object modelling, International Conference on Information Technology for Balanced Automation Systems BASYS 2006: Information Technology For Balanced Manufacturing Systems pp 329-336, 2006 – Springer
104. Thanh-Tung Cap, Hien-Trinh Nguyen, Cellular Neural Network and Application in Animation, International Journal of Research in Engineering and Science (IJRES), ISSN (Online): 2320-9364, ISSN (Print): 2320-9356 [www.ijres.org](http://www.ijres.org) Volume 7 Issue 3 Ser. I || 2019 || PP. 51-61, [www.ijres.org](http://www.ijres.org) 51 | Page]
105. P Stoynov, Some computational methods in finance, AIP Conference Proceedings, 2321, 2021 - [aip.scitation.org](http://aip.scitation.org)
106. J Marro, JJ Torres, JM Cortés, Networks with heterogeneously weighted connections and partial synchronization of nodes, Computer Physics Communications, Volume 177, Issues 1–2, July 2007, Pages 180-183, 2007 - Elsevier
107. Y Zhong, B Shirinzadeh, G Alici..., Deformable Object Modelling Through Cellular Neural Network, 9th International ..., 2005 - [espace.curtin.edu.au](http://espace.curtin.edu.au)
108. Z Chang-xian, Z Shao-peng, Research on Earthquake Security Evaluating Using Cellular Neural Network, Proceedings of the 2012 International Conference of Modern Computer Science and Applications pp 123-127, 2013 – Springer

109. Yu, Zhixian; Zhao, Xiao-Qiang, PROPAGATION PHENOMENA FOR CNNs WITH ASYMMETRIC TEMPLATES AND DISTRIBUTED DELAYS, DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS Volume: 38 Issue: 2 Pages: 905-939 Published: FEB 2018
110. Vilasis-Cardona, Xavier; Vinyoles-Serra, Mireia, Comparison between Chua-Yang and hyperbolic CNNs, 2009 EUROPEAN CONFERENCE ON CIRCUIT THEORY AND DESIGN, VOLS 1 AND 2 Pages: 551-+ Published: 2009
111. Stamova, IM, Stability Analysis of Impulsive Functional Differential Equationsp Book Series: DeGruyter Expositions in Mathematics Volume: 52 Pages: 1-230 Published: 2009, Publisher: WALTER DE GRUYTER GMBH, GENTHNER STRASSE 13, D-10785 BERLIN, GERMANY
112. Zhong, Yongmin; Shirinzadeh, Bijan; Alici, Gursel; et al., Soft tissue modelling through autowaves for surgery simulation, MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING Volume: 44 Issue: 9 Pages: 805-821 Published: SEP 2006
113. Qin, Qi; Wang, Kan; Xu, Hao; et al., Deep Learning on chromatographic data for Segmentation and Sensitive Analysis, JOURNAL OF CHROMATOGRAPHY A Volume: 1634 Article Number: 461680 Published: DEC 20 2020
114. Liu, Jia-Bao; Raza, Zahid; Javaid, Muhammad, Zagreb Connection Numbers for Cellular Neural Networks, DISCRETE DYNAMICS IN NATURE AND SOCIETY Volume: 2020 Article Number: 8038304 Published: OCT 23 2020
115. Rajan, Rakkiyappan; Gandhi, Velmurugan; Soundharajan, Premalatha; et al., Almost periodic dynamics of memristive inertial neural networks with mixed delays, INFORMATION SCIENCES Volume: 536 Pages: 332-350 Published: OCT 2020
116. Imran, Muhammad; Siddiqui, Muhammad Kamran; Baig, Abdul Qudair; et al., Topological properties of cellular neural networks, JOURNAL OF INTELLIGENT & FUZZY SYSTEMS Volume: 37 Issue: 3 Pages: 3605-3614 Published: 2019
117. Zhuang, Jian, Dynamics about neural array with simple lateral inhibitory connections, CHINESE ANNALS OF MATHEMATICS SERIES B Volume: 32 Issue: 2 Pages: 161-186 Published: MAR 2011
118. М. Маркова, Изследване на динамиката на модели Клетъчно Невронни Мрежи възникващи в биологията и екологията, дисертация, 2013
119. Виктория Рашкова, Изследване на динамичното поведение на Клетъчно Невронни Модели с приложения в разпознаване и обработка на образи, дисертация, 2012
13. A.Slavova. Cellular neural network model of some equations from biology, physics and ecology. *Journal of Functional Differential equations*, 10, 3-4, Ariel University Press, 2003, ISSN:0793-1786, 579-591

*Цитира се в:*

120. Rungpitaxmana, Suchinthra, Chaturantabut, Saifon. "Dimension reduction for systems with parametrized boundaries for Fisher's equation".AIP Conference Proceedings, vol:1790, art. UNSP 150023, 2016

2004

14. A.Slavova, V.Mladenov. *Cellular Neural Networks: Theory and applications*. Nova Publishers, 2004, ISBN:1-59454-040-3, 200

*Цумупа се в:*

121. Imran, M., Siddiqui, M., Baig, A., Khalid, W., Shaker, H. "Topological properties of cellular neural networks".Journal of Intelligent and Fuzzy Systems. 37(3), 3605-3614, DOI: 10.3233/JIFS-181813, 2019

122.Liu, J.B., Raza, Z., Javaid, M . "Zagreb Connection Numbers for Cellular Neural Networks". Discrete Dynamics in Nature and Society, Volume 2020 .Article ID 8038304, 2020

123.Liu, X.Z., Wu, K.N., Zhang, W. "Intermittent boundary stabilization of stochastic reaction–diffusion Cohen–Grossberg neural networks", Neural Networks Volume 131, November 2020, Pages 1-13, 2020

124. Rajan, R., Gandhi, V., Soundharajan, P., Joo, Y.H. "Almost Periodic Dynamics of Memristive Inertial Neural Networks With Mixed Delays". Information Sciences Volume 536, October 2020, Pages 332-350, 2020

125. Zhuang, Jian, Dynamics about neural array with simple lateral inhibitory connections, CHINESE ANNALS OF MATHEMATICS SERIES B Volume: 32 Issue: 2 Pages: 161-186 Published: MAR 2011

126. R Campos, V Matos, C Santos, Hexapod locomotion: A nonlinear dynamical systems approach, IECON 2010-36th Annual ..., 2010 - ieeexplore.ieee.org

127. DS Greer, Method of generating an encoded output signal using a manifold association processor having a plurality of pairs of processing elements trained to store a plurality of ...- US Patent 7,805,386, 2010

128. IM Savic, DG Gajic..., Applications of artificial neural networks in chemical engineering, International Journal of Computer Research; Huttington Vol. 23, Iss. 1, (2016): 1-18.

129. T Kopica, Vienna Neural Network Specification Language 2.0, 2015 - othes.univie.ac.at

130. P Priyadharsini, IR Sheeba, Segmentation Of Medical Image Using Fuzzy Neuro Logic- academia.edu

131. XZ Liu, KN Wu, X Ding, W Zhang, Boundary Stabilization of Stochastic Delayed Cohen-Grossberg Neural Networks With Diffusion Terms, IEEE Transactions on ..., 2021 - ieeexplore.ieee.org

132. Liu, Xiao-Zhen; Wu, Kai-Ning; Zhang, Weihai, Intermittent boundary stabilization of stochastic reaction-diffusion Cohen-Grossberg neural networks, NEURAL NETWORKS Volume: 131 Pages: 1-13 Published: NOV 2020

133. M Devoe, MW Devoe Jr, Cellular Neural Networks with Switching Connections, 2012 - scholarworks.gsu.edu

2005

15. V. Mladenov, N. Bardis, A. Slavova, S. Hristova. *MMACTE'05 Proceedings of the 7th WSEAS International Conference on Mathematical Methods and Computational Techniques In Electrical Engineering*. WSEAS, 2005, ISBN:ISBN:999-2222-11-X

Цумура се в:

134. Yunxia, Li; Zeming, Zhang; Weihua, Hana; Changjun Jiang; Erqing, Xie. Analysis on the piezotronic effect in a strained piezo-Schottky junction with AC impedance spectroscopy. *Nano Energy*, Volume 36, June 2017, Pages 118-125, 2017

16. Slavova, A., R. Cancelliere. *Dynamics and stability of generalized cellular nonlinear network model*. *Applied Mathematics and Computations*, 165, 1, Elsevier, 2005, ISSN:0096-3003, DOI:DOI: 10.1016/j.amc.2004.04.083, 127-136. ISI IF:1.525

Цумура се в:

135. C. Imzegouan. "Stability for Markovian switching stochastic neural networks with infinite delay driven by Lévy noise", *International Journal of Dynamics and Control*, <https://doi.org/10.1007/s40435-018-0451-x>, 2019

136. Imzegouan, C., Stability for delayed Markovian switched stochastic neural networks with jump in a phase space, *Nonlinear Studies*, 25(4), pp. 851-865, 2018

137. Guo, Y., Su, H., Ding, X., Wang, K., Global stochastic stability analysis for stochastic neural networks with infinite delay and Markovian switching, *Applied Mathematics and Computation*, 245, pp. 53-65, 2014

2006

17. Slavova, A., *Dynamics and Traveling Waves in CNN Vector Disease Model*, *IEEE Transactions on Circuits and Systems II: Express Briefs* 53(11), pp. 1304-1307, 2006

Цумура се в:

138. Nishio, T., Nishio, Y., Periodic pattern formation and its applications in cellular neural networks, *IEEE Transactions on Circuits and Systems I: Regular Papers*, 55(9), pp. 2736-2742, 2008

139. Roche, B., Guégan, J.-F., Bousquet, F., Multi-agent systems in epidemiology: A first step for computational biology in the study of vector-borne disease transmission, *BMC Bioinformatics*, 9, 435, 2008

18. Slavova, A., Markova, M., *Receptor-based CNN model with hysteresis for pattern formation, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications 4145878, 2006*

*Цумура се в:*

140. Javidmanesh, E., Afsharnezhad, Z., Effati, S., Bifurcation analysis of a cellular nonlinear network model via neural network approach, *Neural Computing and Applications*, 24(5), pp. 1147-1152, 2014

19. Mladenov, V., Slavova, A., *On the periodic solutions in one dimensional cellular nonlinear networks based on Josephson Junctions (JJ's), Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications 4145877, 2006*

*Цумура се в:*

141. Russer, P., Russer, J.A., Nanoelectronic RF josephson devices, *IEEE Transactions on Microwave Theory and Techniques*, 59(10 PART 2), 6021352, pp. 2685-2701, 2011

142. Li, Yunxia; Zhang, Zeming; Han, Weihua; et al., Analysis on the piezotronic effect in a strained piezo-Schottky junction with AC impedance spectroscopy, *NANO ENERGY* Volume: 36 Pages: 118-125  
Published: JUN 2017

2007

20. Slavova, A., Zecca, P., *Complex behaviour of polynomial FitzHugh-Nagumo CNN model. Nonlinear Analysis-Real World Applications*, 8, 4, Elsevier, 2007, ISSN:1468-1218, 1331-1340. ISI IF:1.659

*Цумура се в:*

143. Israa Al-Mashhadani, Sillas Hadjiloucas. Linearized Bond Graph of Hodgkin-Huxley Memristor Neuron Model. *CNNA 2016; 15th International Workshop on Cellular Nanoscale Networks and their Applications*, 2016,

144. J. Kung, Y. Long, D. Kim, S. Mukhopadhyay, An Energy Efficient Physical Platform for Solving Differential Equations, 2017

145. Kung, J., Long Y., Duckhwan K., Saibal M. "A programmable hardware for simulating dynamical systems", *ISCA'17 Proceedings*, 2017

146. Mao, X., Zhou X., Shi, T., Qiao, L. "Dynamical Analysis of Coupled Bidirectional FitzHugh–Nagumo Neuronal Networks With Multiple Delays. *Journal of Computational and Nonlinear Dynamics*. 14(6), 061002, DOI: 10.1115/1.4042998, 2019

147. WA Zúñiga-Galindo. "Reaction-diffusion Equations on Complex Networks and Turing Patterns, via p-Adic Analysis". *arXiv:1905.02128*, 2019

148. Roshid, M.M., Ali, M.Z., Rezazadeh, H. "Kinky periodic pulse and interaction of bell wave with kink pulse wave propagation in nerve fibers and wall motion in liquid crystals". Partial Differential Equations in Applied Mathematics, Volume 2, December 2020, 100012, 2020
149. Zúñiga-Galindo, W.A. "Non-Archimedean Models of Morphogenesis". arXiv:2009.14752, 2020
150. Zúñiga-Galindo, W.A. "Reaction-diffusion equations on complex networks and Turing patterns, via p-adic analysis", Journal of Mathematical Analysis and Applications 491(1), 124239, 2020
151. Arena, P., Patané, L., Contributions of CNN to bio-robotics and brain science , (Book Chapter) Chaos, CNN, Memristors and Beyond: A Festschrift for Leon Chua, pp. 56-82, 2013
152. JH Kung, Energy-efficient digital hardware platform for learning complex systems, Ph.D. thesis, 2017 - smartech.gatech.edu
153. Md. Mamunur Roshid, Harun-Or-Roshid, M. Zulfikar Ali, Hadi Rezazadeh, Kinky periodic pulse and interaction of bell wave with kink pulse wave propagation in nerve fibers and wall motion in liquid crystals, Partial Differential Equations in Applied Mathematics, 2 (2020) 100012
154. Г. Бобева, Приложение на метода на локалната активност за изследване динамиката на нелинейни Клетъчно Невронни Мрежи, дисертация, 2021

2008

21.Slavova,A. *Reaction-Diffusion Cellular Neural Networks. Advanced topics in Neural Networks, WSEAS, 2008, ISSN:1790-5109, 63-66*

*Цитира се в:*

155. VE Tumanov . "Evaluation of the rate constants reactions of the alkyl, allyl and aryl radicals with hydrocarbons with use the artificial of neural network". Живые и биокосные системы, 2015 - jbks.ru
156. VE Tumanov, BN Gaifullin, Evaluation of the Rate Constants of Reactions of Phenyl Radicals with Hydrocarbons with the Use of Artificial Neural Network, Current Approaches in Applied Artificial, Springer, 2015
- 157.SR Meier."The investigation of variable nernst equilibria on isolated neurons and coupled neurons forming discrete and continuous networks". 2016 - search.proquest.com
- 158.Е. Б. Соловьева, Г. Ю. Зверев, "Нейросети и робототехника: Математическая модель реакционно-диффузных клеточных нейронных сетей", Синтез, анализ и диагностика электронных цепей - Международный сборник научных трудов, Вып. 16, Подготовлен из докладов Третьей Международной заочной конференции «Синтез, анализ и диагностика электронных цепей» (Россия, г.Ульяновск, 18–22 мая 2020 года), 2020

22.A.Slavova. *Cellular Neural Networks model of risk management, Cellular Neural Networks and Their Applications. IEEE Proc. of CNNA2008, IEEE, 2008, ISSN:10140415, 1-4*

*Џумупа се в:*

159. G.Bruno, Pricing Credit Risk Derivatives with R, Universal Journal of Applied Mathematics 4(1): 16-21, 2016

2009

23. Slavova,A., Popivanov,P., Zecca,P., *Compact travelling waves and peakon type solutions of several equations of mathematical physics and their Cellular Neural Network realization. Nonlinear Analysis: Real World Applications*, 10, 3, Elsevier, 2009, ISSN:1468-1218, 1453-1465. ISI IF:2.519

*Џумупа се в:*

160. Wen, Z., Extension on peakons and periodic cusp waves for the generalization of the Camassa-Holm equation, Mathematical Methods in the Applied Sciences Volume 38, Issue 11, 30 July 2015, Pages 2363-2375, 2015

161. Wen, Z., Liu, Z., Bifurcation of peakons and periodic cusp waves for the generalization of the Camassa Holm equation, Nonlinear Analysis: Real World Applications, 12(3), pp. 1698-1707, 2011

24. G.Agranovich, E.Litsyn, A.Slavova. *Impulsive control of a hysteresis cellular neural network model. Nonlinear Analysis: Hybrid Systems*, 3, 1, Elsevier, 2009, ISSN:1751-570X, 65-73

*Џумупа се в:*

162.G.ARTHI, STUDIES ON CONTROLLABILITY OF SECOND ORDER IMPULSIVE FUNCTIONAL INTEGRODIFFERENTIAL SYSTEMS IN BANACH SPACES, shodhganga.inflibnet.ac.in, 2015

163.Z.J.Gui, K.H. Wang, Exponential Synchronization of the Hopfield Neural Networks with New Chaotic Strange Attractor, ITM Web Conf. Volume 12, 2017

164.Li, X., Song, S., Wu, J., "Impulsive control of unstable neural networks with unbounded time-varying delays", Science China Information Sciences 61(1), 012203, 2018

165.Yu, Zhixian; Zhao, Xiao-Qiang, "PROPAGATION PHENOMENA FOR CNNS WITH ASYMMETRIC TEMPLATES AND DISTRIBUTED DELAYS", DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS Volume: 38

166. Jia, S., Chen, Y., Impulsive control of a class of multiple unstable neural networks, Journal of Inequalities and Applications, 2021(1),39, 2021

167. Javidmanesh, E., Afsharnezhad, Z., Effati, S., Bifurcation analysis of a cellular nonlinear network model via neural network approach, Neural Computing and Applications, 24(5), pp. 1147-1152, 2014

168. Xu, C., Li, P., Dynamics in a delayed neural network model of two neurons with inertial coupling, Abstract and Applied Analysis, 2012,689319

169. Zhou, J., Wu, Q., Xiang, L., Cai, S., Liu, Z., Impulsive synchronization seeking in general complex delayed dynamical network, Nonlinear Analysis: Hybrid Systems, 5(3), pp. 513-524, 2011

170. Wang, Y.-W., Wen, C., Soh, Y.C., Xiao, J.-W., Reduced-order impulsive control for a class of nonlinear systems, *International Journal of Robust and Nonlinear Control*, 20(8), pp. 892-898, 2010

171. Nieto, J.J., Tisdell, C.C., On exact controllability of first-order impulsive differential equations, *Advances in Difference Equations*, 2010,136504

2010

25. Cancelliere, R., Gai, M., Slavova, A., *Application of polynomial cellular neural networks in diagnosis of astrometric chromaticity*, *Applied Mathematical Modelling*, 34(12), pp. 4243-4252, 2010

*Сумура се в:*

172. Subashini, M., Sahoo, S.K., Pulse coupled neural networks and its applications, *Expert Systems with Applications*, 41(8), pp. 3965-3974, 2014

173. Luo, W., Wang, X., Liu, Y., Lan, H., Novel global exponential stability criterion for recurrent neural networks with time-varying delay, *Abstract and Applied Analysis*, 2013,540951, 2013

2011

26. Agliardi R., P. Popivanov, A. Slavova. *Nonhypoellipticity and comparison principle for partial differential equations of Black-Scholes type*. *Nonlinear Analysis*, 2011, ISSN:1468-1218

*Сумура се в:*

174. Петрова, З. "Въведение в уравненията на математическата физика", ТУ-София, 2017, 160 стр., 2017

175. Stoyanov, P., Some computational methods in finance, *AIP Conference Proceedings*, 2321,030032, 2021

176. Ditchchev, D., Petrova, Z., On the simultaneous teaching of mathematics and new programming language in master degree, *AIP Conference Proceedings*, 2321,030005, 2021

177. Koleva, M.N., Vulkov, L.G., A splitting numerical scheme for non-linear models of mathematical finance, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 8353 LNCS, pp. 602-610, 2014

178. Koleva, M.N., Vulkov, L.G., A splitting flux limiter finite difference scheme for the nonlinear black-scholes equation, *Applied and Computational Mathematics*, 13(3), pp. 381-395, 2014

179. Koleva, M.N., Positivity preserving numerical method for non-linear Black-Scholes models, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 8236 LNCS, pp. 363-370, 2013

180. Koleva, M.N., Vulkov, L.G., A second-order positivity preserving numerical method for Gamma equation, *Applied Mathematics and Computation*, 220, pp. 722-734, 2013



181. Koleva, M.N., Vulkov, L.G., A kernel-based algorithm for numerical solution of nonlinear PDEs in finance, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 7116 LNCS, pp. 566-573, 2012
182. Gyulov, T.B., Valkov, R.L., Classical and weak solutions for two models in mathematical finance, AIP Conference Proceedings, 1410, pp. 195-202, 2011
183. Koleva, M.N., Iterative methods for solving nonlinear parabolic problem in pension saving management, AIP Conference Proceedings, 1404, pp. 457-463, 2011

*27. Slavova, A., Popivanov, P.. Nonlinear Waves. An Introduction. Series on Analysis,, 4, World Scientific, 2011, ISBN:13 978-981-4322-12-6, 200*

*Цумура се в:*

184. Z.Dimitrova. Several results from numerical investigation of non-linear waves connected to blood flow in an elastic tube of variable radius, ArXiv: 1509.08600v1 [Physics.flu-dyn], 29 Sept. 2015, 1-14, 2015
185. Haberman, Jack; Lyons, Tony, "Solitons of shallow-water models from energy-dependent spectral problems", EUROPEAN PHYSICAL JOURNAL PLUS Volume: 133 Issue: 1 Article Number: 16 Published: JAN 18 2018, 2018
186. Bruell, G., Ehrnstrom, M., Geyer A., Pey L., "Symmetric solutions of evolutionary PDE, ArXiv 1704.05483 v2 [Math.Ap.], 21.09.2017, 2017
187. Bruell, Gabriele; Ehrnstrom, Mats; Geyer, Anna; Pei, Long. Symmetric solutions of evolutionary partial differential equations, NONLINEARITY, Volume: 30, Issue: 10, Pages: 3932-3950, 2017
188. Ivanov, R., Lyons, T., Orr, N. "A dressing method for soliton solutions of the Camassa-Holm equation". AIP Conference Proceedings, vol:1895, art. UNSP 040003-1, 2017
189. Ivanov, R., Lyons, T., Orr, N. "Camassa-Holm Cuspons, Solitons and Their Interactions via the Dressing Method". Journal of Nonlinear Science, 30, pages225-260(2020), 2020
190. An, Hongli; Cheung, Ka-Luen; Yuen, Manwai, A class of blowup and global analytical solutions of the viscoelastic Burgers' equations, PHYSICS LETTERS A Volume: 377 Issue: 37 Pages: 2275-2279 Published: NOV 8 2013
191. Ivanov, Rossen; Lyons, Tony, INTEGRABLE MODELS FOR SHALLOW WATER WITH ENERGY DEPENDENT SPECTRAL PROBLEMS, JOURNAL OF NONLINEAR MATHEMATICAL PHYSICS Volume: 19 Supplement: 1 Article Number: 1240008 Published: OCT 2012
192. RI Ivanov, T Lyons, Dark solitons of the Qiao's hierarchy, Journal of Mathematical Physics 53, 123701, 2012
193. VS Gerdjikov, Riemann-Hilbert Problems with canonical normalization and families of commuting operators, arXiv preprint arXiv:1204.2928, 2012 - arxiv.org

194. VS Gerdjikov, GG Grahovski, On the 3-wave equations with constant boundary conditions, arXiv preprint arXiv:1204.5346, 2012 - arxiv.org
195. T Gramchev, M Marras, S Vernier–Piro, On extinction phenomena for parabolic systems, Differential and Difference Equations with Applications pp 561-570, 2013 – Springer
196. Rossen Ivanov, Tony Lyons, ON THE PEAKON AND SOLITON SOLUTIONS OF AN INTEGRABLE PDE WITH CUBIC NONLINEARITIES, BGSIAM'12, ISSN:1314-7145
197. X Li, On the Global Well-Posedness of the Viscous Two-Component Camassa-Holm System, Abstract and Applied Analysis, Volume 2012 | Article ID 327572 | <https://doi.org/10.1155/2012/327572>, 2012
198. M Ehrnstrom, G Bruell, L Pei, A Geier, Symmetric solutions of evolutionary partial differential equations, Nonlinearity. 2017. 30 (10) 10.1088/1361-6544/aa8427, 2017
199. TI Ivanova, Dynamics of flows of a substance in a channel with a branch, AIP Conference Proceedings, 2321, 2021 - aip.scitation.org
200. Петрова, З. "Въведение в уравненията на математическата физика", ТУ-София, 2017, 160 стр., 2017

28. Slavova A., V. Rashkova. *A Novel CNN Based Image Denoising Model. Proc. ECCTD 2011, 2011, ISBN:978-1-4577-0616-5, 225-228*

*Съдържа се в:*

201. Zhang, X.-H.; Yu, L.-H., Fractional-order cellular neural networks adaptive synchronization control circuit design and simulation, Control Theory and Applications, Volume 33, Issue 6, 1 June 2016
202. Zhang, X.-H.; Yu, L.-H., Multi-element circuit simulation of alterable parameters and switchable fractional-order cellular neural networks , Acta Electronica Sinica, Volume 44, Issue 4, 1 April 2016, Pages 933-943, 2016
203. 分数阶细胞神经网络自适应同步控制设计及电路仿真 张小红 · 俞梁华 - 控制理论与应用. 2016 - jcta.alljournals.ac.cn, 2016
204. 变参数细胞神经网络的分数阶可切换多元电路设计及仿真 张小红 · 俞梁华 - 电子学报2016 - cqvip.com, 2016
205. Tang, S.-S., Fei, K.-L., Wang, W. "Biomedical image edge detection based on CNN". ACM International Conference Proceeding Series, pp. 84-88, 2017
206. Hu, G., Yuenyong, S., Songklanakarin. "A new method of image denoising based on cellular neural networks ", Journal of Science and Technology 40(3), pp. 522-533, 2018
207. Lakra, M., Kumar, S. "A CNN-based computational algorithm for nonlinear image diffusion problem". Multimedia Tools and Applications 79(33-34), pp. 23887-23908, 2020

29.Slavova A., V. Rashkova. *Convection diffusion model for image processing. C.R.Bulg.Acad.Sci., 2011, ISSN:1310-1331, 339-344*

*Цитирана се в:*

208. Hiba, Antal, Orzo, Laszlo. Retina simulator challenges, image processing with a varying resolution sensor. CNNA 2016; 15th International Workshop on Cellular Nanoscale Networks and their Applications, 2016

209. Huang, Xia; Wang, Jian; Tang, Fan, "Metal artifact reduction on cervical CT images by deep residual learning", BIOMEDICAL ENGINEERING ONLINE Volume: 17 Article Number: 175 Published: NOV 27 2018

30. Slavova A., R. Tetzlaff, M. Markova, *CNN computing of the interaction of fluxons, IEEE Proceedings of the General Assembly of URSI, Istanbul, 2011.*

*Цитирана се в:*

210. Г. Бобева, Приложение на метода на локалната активност за изследване динамиката на нелинейни Клетъчно Невронни Мрежи, дисертация, 2021

2012

31. Agliardi R., P. Popivanov, A. Slavova. *A general framework for some economic problems with uncertainty and exogeneous barriers. Economic Modelling, 2012, ISSN:0264-9992*

*Цитирана се в:*

211. Kumar N., Ranjeeni K., Bannigidadmath, "New Evidence of Psychological Barrier from the Oil Market", Journal of behavioral finance, vol. 18:4, 2017, 457-469, 2017

212.Narayan, P.K., Ranjeeni, K., Bannigidadmath D. "New evidence of psychological barrier from the oil market. Journal of Behavioral Finance, 18(4), pp. 457-469, 2017, 2017

213. Петрова, З. "Въведение в уравненията на математическата физика", ТУ-София, 2017, 160 стр.,

2013

32. Agliardi R., P. Popivanov, A. Slavova. *On nonlinear Black-Scholes equations. In: Nonlinear Analysis and Differential Equations, 2013, ISSN:1314-7587, 75-81*

*Цитирана се в:*

214. S.Edeki, O.Ugbeber, E.Owoloko. Analytical solutions of the Black - Scholes pricing model for European option variation via projected differential transformation method, Entropy, vol 17, 7510-7521; DOI: 10.3390/e1711550 (2015), ISSN 1099-4300, 2015

33. Popivanov P., A. Slavova. *On Ventcel's type boundary condition for Laplace operator in a sector. In: Journal of Geometry and Symmetry in Physics, 31, 2013, 119-130*

*Цитирана се в:*

215. Nicaise S., Li H., Mazzucato A. "Regularity and a priori error analysis of a Ventcel problem in polyhedral domains", *Mathematical methods in the Applied Sciences*, vol.40, issue 5, 2017, 1625-1636, 2017

216. Stambough M., Semon, M. "Symmetry and solitons to the Helmholtz equation inside an equilateral triangle", *Journal of Geometry and Symmetry in Physics*, vol.43, 2017, 37-45, 2017

33. Slavova A., N. Kyurkchiev. *On an implementation of Black-Scholes model for estimation of Call- and Put option via programming environment MATHEMATICA. C. R. Acad. Sci. Bulg, 2013, ISSN:13-10, 643-650*

*Цитирана се в:*

217. A. Kananthai, S. Suksern, On the parametric Interest of the Option Price from the Black-Scholes Equation, *IAENG International J. of Appl. Math.*, 46 (1), 1-13, (2016);  
[http://www.iaeng.org/IJAM/issues\\_v46/issue\\_1/IJAM\\_46\\_1\\_13.pdf](http://www.iaeng.org/IJAM/issues_v46/issue_1/IJAM_46_1_13.pdf), 2016

2014

34. Slavova A., Tetzlaff R.. *CNN Computing of Double Sine-Gordon Equation with Physical Applications. C. R. Acad. Sci. Bulg.*, 67, 1, BAS, 2014, ISSN:1310-1331, 21-27. ISI IF:0.198

*Цитирана се в:*

218. N. Shukla, S. Datta, A. Parihar, V. Narayanan, A. Raychowdhury. *Computing with Coupled Dynamical Systems. CNNA 2016; 15th International Workshop on Cellular Nanoscale Networks and their Applications*, 2016

219. Г. Бобева, Приложение на метода на локалната активност за изследване динамиката на нелинейни Клетъчно Невронни Мрежи, дисертация, 2021

2017

35. Slavova A., P. Zecca. *Modeling Natural Phenomena via Cellular Nonlinear Networks. Cambridge Scholars Publishing*, 2017, ISBN:978-1-5275-0365-6, 224

*Цитирана се в:*

220. Stoyanov, P. "Cellular neural networks and their applications". *AIP Conference proceedings*, 2159, 2019, DOI: 10.1063/1.5127499, 2019

221. Попиванов, П. "Аспекти от развитието на диференциалните уравнения в Института по математика и информатика при БАН през последното десетилетие", Списание на БАН, 2019

222. Kamenskii, M., Wen, C.F., Zvereva, M. "On a variational problem for a model of a Stieltjes string with a backlash at the end". Optimization 69(9), pp. 1935-1959, DOI: 10.1080/02331934.2019.1702986, 2020

223. Зверева, М.Б., Каменский, М.И., Шабров, С.А., Рено де Фитт Польл "ЗАДАЧА О ДЕФОРМАЦИЯХ РАЗРЫВНОЙ СТИЛТЬЕСОВСКОЙ СТРУНЫ С НЕЛИНЕЙНЫМ ГРАНИЧНЫМ УСЛОВИЕМ". ВЕСТНИК ВГУ. СЕРИЯ: ФИЗИКА. МАТЕМАТИКА. 2020. № 3, 76-94, 2020

224. Г. Бобева, Приложение на метода на локалната активност за изследване динамиката на нелинейни Клетъчно Невронни Мрежи, дисертация, 2021

36. Slavova A., G. Bobeva. *Determination of edge of chaos in hysteresis CNN model with memristor synapses. IEEE Proc., IEEE, 2017, ISSN:2474-9672, 1-4*

Цитира се в:

225. Chowdhury, A., Ayman, A., Dey, S., Sarker, M., Arka, A.I. " Simulations of threshold logic unit problems using memristor based synapses and CMOS neuron", 3rd International Conference on Electrical Information and Communication Technology, EICT 2017 2018-January, pp. 1-4, 2018

2020

37. Slavova, A., Agranovich, G., Litsyn, E.. *Dynamical behavior of integro-differential boundary value problem arising in nano-structures via Cellular Nanoscale Network approach. Journal of Computational and Applied Mathematics, 352, Elsevier, 2019, ISSN:0377-0427, DOI:https://doi.org/10.1016/j.cam.2018.11.024, 62-71. JCR-IF (Web of Science):1.883*

Цитира се в:

226. Abdella, K., Ross, G. "Solving integro-differential boundary value problems using sinc-derivative collocation". Mathematics 8(9), 1637, 2020