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Petrov, V., **Nikolov, S.,** Rheodynamic model of cardiac pressure pulsations, *Mathematical Biosciences* (ISSN: 0025-5564), 157(1-2), 237-252, 1999.

Цитирана от:

1. Liang, H., Huang, J., On the uniqueness and expression of limit cycles in planar polynomial differential system via monotone iterative technique, *Applicable Analysis* (ISSN: 0003-6811; SJR 0.653; Q2; SCOPUS), 101(9), 3365-3388, 2022.

2. Feng, B., Asymptotic position and shape of the limit cycle in a cardiac rheodynamic model, *Applied Mathematics E- Notes* (ISSN: 1607-2510; Google Scholar), 6, 1-9, 2006.

3. Liu, Z., Feng, B., Qualitative analysis for a class of plane systems, *Applied Mathematics E- Notes* (ISSN: 1607-2510; Google Scholar), 4, 74-79, 2004.

4. Liu, Z., Feng, B., Qualitative analysis for rheodynamic model of cardiac pressure pulsations, *Acta Math. Appl. Sinica, English Series* (ISSN: 1439-7617; SJR 0.4; SCOPUS), 20(4), 573-578, 2004.

5. Xie, F., Chen, X., Canards in a rheodynamic model of cardiac pressure pulsations, *Chinese Physics B* (ISSN: 1674-1056; IF 0.8; SCOPUS), 16(9), 2635-2639, 2007.

6. Котев, В., Динамичен анализ на времезакъснителни модели в молекулярната биомеханика, Дисертация, 2008.

Nikolov, S., Stoytchev, S., Torres, A., Nieto, J.J., Biomathematical modeling and analysis of blood flow in an intracranial aneurysm, *Neurological Research* (ISSN: 0161-6412), 25, 497-504, 2003.

Цитирана от:

7. Shabbir, M., Nazara, T., Numerical study of irreversibility analysis on pulsatile flow of blood through a ω- shaped stenotic artery, *Chinese Journal of Physics* (ISSN: 0577-9073; IF 5.0 Q2; SCOPUS), 87, 97-117, 2024.

8. Abbas, Z., Shabbir, M., Ali, N., Analysis of rheological properties of Herschel-Bulkley fluid for pulsating flow of blood in ω-shaped stenosed artery, *AIP Advances* (ISSN: 2158-3226; IF 1.568; SCOPUS), 7(10), 105123, 2017.

9. Zaman, A., Ali, N., Khan, A., Computational biomedical simulations of hybrid nanoparticles on unsteady blood hemodynamics in a stenotic artery, *Mathematics and Computers in Simulation* (ISSN: 0378-4754; IF 1.409 Q2; SCOPUS), 169, 117-132, 2020.

10. Drapaca, C., Sivaloganathan, S., Modeling traumatic brain injuries, aneurysms, and strokes, In: Mathematical Modelling and Biomechanics of the Brain (ISBN: 978-1-4939-9809-8), Springer, NY, DOI: 10.1007/978-1-4939-9810-4_4, 2019.
Fields Institute Monographs (ISSN: 1069-5273; SJR 0.102; SCOPUS), 37, pp. 75-126, 2019.

11. Suresh, A., Rajan, V., Study of non-Newtonian blood flow through arteries using OpenFOAM, *AIP Conference Proceedings* (ISSN: 0094-243X; SJR 0.182), 2134, art. No 040003-1, 2019.

12. Zaman, A., Numerical study of pulsatile blood flow in arteries, *PhD-thesis* (Google Scholar), Int. Islamic University, Department of mathematics and Statistics, Islamabad, Pakistan, 2016.

13. Melton, T.G., Vatsala, A.S., Third order convergence for forced duffing equations with three-point nonlinear boundary conditions, *AIP Conference Proceedings* (ISSN: 1551-7616; SJR 161; SCOPUS), 1497, 239-246, 2012.

14. Agarwal, R., Ahmad, B., Alsaedi, A., Method of quasilinearization for a nonlocal singular boundary value problem in weighted spaces, *Boundary Value Problems* (ISSN: 1687-2770; IF 0.92; SCOPUS), 2013, 261 (17 pages), 2013.

15. Ferranti, Fr., Tamburrelli, V., Antonioni, G., Rational macromodeling of 1D blood flow in the human cardiovascular system, *Int. J. for Numerical Methods in Biomedical Engineering* (ISSN: 2040-7947, IF 1.542; SCOPUS), 31(3), 1-17, 2015.

16. Ahmad, B., Alsaedi, A., Existence of approximate solutions of the forced Duffing equation with discontinuous type integral boundary conditions, *Nonlinear Analysis: Real World Applications* (ISSN: 1468-1218; IF 2.151; SCOPUS), 10(1), 358-367, 2009.

17. Ahmad, B., Alghamdi, B., Approximate solutions of the forced Duffing equation with mixed nonlinearities, *Applied Mathematics E-Notes* (ISSN: 1607-2510; Google Scholar), 9, 160-167, 2009.

18. Alsaedi, A., Ahmad, B., Existence and analytical approximation of solutions of Duffing type nonlinear integro-differential equation with integral boundary conditions, *Journal of Inequalities and Applications* (ISSN: 1025-5834; Google Scholar), art. no. 193169 (19 pages), 2009.

19. Ahmad, B., Approximation of solutions of the forced Duffing equation with *m*-point boundary conditions, *Communications in Applied Analysis* (ISSN: 1083-2564; Google Scholar), 13(1), 11-20, 2009.

20. Alsaedi, A., Afandi, H., Existence and approximation of solutions for nonlocal boundary value problems with mixed nonlinearities, *Applied Mathematical Sciences* (ISSN: 0066-5452; Google Scholar), 4(4), 177-190, 2010.

21. Ahmad, B., Sivasundaram, S., Existence and approximation of solutions of forced Duffing type integro-differential equations with three-point nonlinear boundary conditions, *Nonlinear Analysis. Real World Applications* (ISSN: 1468-1218; IF 2.151; SCOPUS), 11(4), pp. 2905-2912, 2010.

22. Melton, T.G., Vatsala, A.S., Third order convergence for forced duffing equations with three-point nonlinear boundary conditions, *AIP Conference Proceedings* (ISSN: 1551-7616; SJR 0.161; SCOPUS), 1497, 239-246, 2012.

23. Agarwal, R., Ahmad, B., Alsaedi, A., Method of quasilinearization for a nonlocal singular boundary value problem in weighted spaces, *Boundary Value Problems* (ISSN: 1687-2770; IF 0.92; SCOPUS), 2013, p.261 (17 pages), 2013.

24. Ahmad, B., A quasilinearization method for a class of integro-differential equations with mixed nonlinearities, *Nonlinear Analysis: Real World Applications* (ISSN: 1468-1218; IF 1.659; SCOPUS), 7(5), 997-1004, 2006.

25. Hassan, T., Timofeev, E., Saito, T., Shimizu, H., Ezura, M., Matsumoto, Y., Takayama, K., Tominaga, T., Takahashi, A., A proposed parent vessel geometry-based categorization of saccular intracranial aneurysms: Computational flow dynamics analysis of the risk factors for lesion rupture, *J. of Neurosurgery* (ISSN: 0022-3085; SJR 1.3), 103(4), 662-680, 2005.

26. Alseadi, A., Generalized quazilinearization method for a forced Duffing equation with mixed nonlinear three-point boundary conditions, *Int. J. of Pure and Applied Mathematics* (ISSN: 1311-8080, IF 0.372; SCOPUS), 31(2), 265-278, 2006.

27. Ahmad, B., Alsaedi, A., An extended method of quasilinearization for nonlinear impulsive differential equations with a nonlinear three-point boundary condition, *Electronic Journal of Qualitative Theory of Differential Equations* (ISSN: 1417-3875; Google Scholar), 1-19, 2007.

28. El-Gebeily, M., O'Regan, D., A quasilinearization method for a class of second order singular nonlinear differential equations with nonlinear boundary conditions, *Nonlinear Analysis: Real World Applications* (ISSN: 1468-1218; IF 1.659; SCOPUS), 8(1), 174-186, 2007.

29. Ruan, W., Clark, M., Zhao, M., Curcio, A., Global solution to a hyperbolic problem arising in the modeling of blood flow in circulatory systems, *Journal of Mathematical Analysis and Applications* (ISSN: 0022-247X; IF 1.064; SCOPUS), 331(2), 1068-1092, 2007.

30. Alsaedi, A., Monotone iteration scheme for a forced Duffing equation with nonlocal three-point conditions, *Communications of the Korean Mathematical Society* (ISSN: 1225-1763; SCOPUS), 22(1), 53-64, 2007.

31. Alsaedi, A., Unilateral monotone iteration scheme for a forced Duffing equation with periodic boundary conditions, *Applied Mathematics E-Notes* (ISSN: 1607-2510; Google Scholar), 7, 159-166, 2007.

32. Ahmad, B., Alsaedi, A., Alghamdi, B., Generalized quasilinearization method for a forced Duffing equation with three-point nonlinear boundary conditions, *Mathematical Inequalities and Applications* (ISSN: 1331-4343; Google Scholar), 11(1), 163-171, 2008.

33. Ahmad, B., Alsaedi, A., Alghamdi, B., Analytic approximation of solutions of the forced Duffing equation with integral boundary conditions, *Nonlinear Analysis: Real World Applications* (ISSN: 1468-1218; IF 2.151; SCOPUS), 9(4), 1727-1740, 2008.
34. Ahmad, B., Alghamdi, B., Approximation of solutions of the nonlinear Duffing equation involving both integral and non-integral forcing terms with separated boundary conditions, *Computer Physics Communications* (ISSN: 0010-4655; SJR 0.2; SCOPUS), 179(6), 409-416, 2008.
35. El-Gebeily, M., O'Regan, D., Existence and quasilinearization for a class of nonlinear elliptic second order partial differential equations, *Dynamic Systems and Applications* (ISSN: 10562176; SJR 0.6; SCOPUS), 17(3-4), 445-458, 2008.
36. Вълков, Н., Реконструктивен анализ на времеви редове в нелинейната динамика и биодинамика, Дисертация, 2004.
37. Ванчева, Е., Динамичен анализ на сигнални пътеки в молекулярната биомеханика, Дисертация, 2007.

Nikolov, S., Bozhov, B., Nedev, V., Zlatanov, V., The Sherman system: bifurcations, regular and chaotic behaviour, *Comptes rendus de l'Academie bulgare des Sciences* (ISSN: 1310-1331), 56(5), 19-24, 2003.

<u>Цитирана от:</u>

38. Stoyanov, B., Stoyanov, B., BOOST: Medical image steganography using nuclear spin generator, *Entropy* (ISSN: 1099-4300; IF 2.419; SCOPUS), 22(5), art. No 501, 2020.
39. Paraskevov, H., Stoyanov, B., Steganographic algorithm based on chaotic random system on Raspberry Pi hardware, *AIP Conference Proceedings* (ISBN: 978-0-7354-4077-7; SJR 0.19; SCOPUS), 2333(1), 070002, 2021.
40. Shen, Y., Ypma, T., Bifurcation of solutions of separable parameterized equations into lines, *Electr. J. of Diff. Equations* (ISSN: 1072-6691; Google Scholar) vol. 19, pp. 245-255, 2010.
41. Котев, В., Динамичен анализ на времезакъснителни модели в молекулярната биомеханика, Дисертация, 2008.

Nikolov, S., Petrov, V., New results about route to chaos in Rossler system, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274), 14(1), 293-308, 2004.

<u>Цитирана от:</u>

42. Liang, C.X., Seismic response analysis on a chaotic system, *Advanced Materials Research* (ISSN: 1022-6680, SJR 0.144; SCOPUS), 639-640, 911-916, 2013.
43. Sarmah, H., Baishya, T., Das, M., Period doubling bifurcation and Feigenbaum universality in Rossler system, *J. of Global Research in Mathematical Archives* (ISSN: 2320-5822; Google Scholar), 1(9), 53-71, 2013.
44. Barrio, R., Blesa, F., Serrano, S., Qualitative analysis of the Rossler equations: Bifurcations of limit cycles and chaotic attractors, *Physica D: Nonlinear Phenomena* (ISSN: 0167-2789; IF 1.777; SCOPUS), 238(13), 1087-1100, 2009.
45. Barrio, R., Blesa, F., Dena, A., Serrano, S., Qualitative and numerical analysis of the Rossler model: Bifurcations of equilibria, *Computers & Mathematics with Applications* (ISSN: 0898-1221, IF 1.472; SCOPUS), 62(11), 4140-4150, 2011.
46. Alvarez-Ramirez, J., Cervantes, I., Espinosa-Peredes, G., A double-scroll Rossler system, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 0.981; SCOPUS), 15(5), 1815-1822, 2005.
47. Starkov, K., Starkov Jr., K., Localization of periodic orbits of the Rossler system under variation of its parameters, *Chaos, Solitons & Fractals* (ISSN: 0960-0779, IF 1.267; SCOPUS), 33(5), 1445-1449, 2007.
48. Liu, S., Tang, J., Qin, J., Yin, X., Bifurcation analysis and control of periodic solutions changing into invariant tori in Langford system, *Chinese Physics B* (ISSN: 1674-1056; IF 0.8; SCOPUS), 17(5), 1691-1697, 2008.
49. Fei, N., Wei, X., Tong, F., Xiao-Le, Y., Stochastic period-doubling bifurcation analysis of a Rossler system with a bounded random parameter, *Chinese Phys. B* (ISSN: 1674-1056; IF 1.603), 19(1), art. 010510, 2010.

50. Baishya, T.K., A study of chaos in some nonlinear maps and differential equations, *PhD thesis* (Google Scholar), Gauhati University, India, 2014.

Nikolov, S., Bozhkov, B., Bifurcations and chaotic behaviour on the Lanford system, *Chaos, Solitons & Fractals* (ISSN: 0960-0779), 21(4), 803-808, 2004.

Цитирана от:

51. Musafirov, E., Perturbations of the Lanford system which do not change the reflecting function, *Int. J. of Bifurcations and Chaos* (ISSN: 0218-1274; IF 1.329; SCOPUS), 27(10), art No 1750154 (5 pages), 2017.

52. Yang, Q., Yang, T., Complex dynamics in a generalized Langford system, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 3.464; SCOPUS), 91(4), 2241-2270, 2018.

53. Guo, G., Wang, X., Lin, X., Wei, M., Steady-state and Hopf bifurcations in the Langford ODE and PDE systems, *Nonlinear Analysis: Real World Applications* (ISSN: 1468-1218; IF 2.238; SCOPUS), 34, 343-362, 2017.

54. Krishenko, A., Starkov, K., Iteration method of the localization of periodic orbits, *2005 Intern. Conf. on Physics and Control, PhysCon 2005, Proceedings*, 2005, 602-605, 2005.

55. Krishchenko, A.P., Starkov, K.E., Localization of compact invariant sets of nonlinear systems with applications to the Lanford system, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 0.981; SCOPUS), 16(11), 3249-3256, 2006.

56. Liu, S., Tang, J., Qin, J., Yin, X., Bifurcation analysis and control of periodic solutions changing into invariant tori in Langford system, *Chinese Physics B* (ISSN: 1674-1056; IF: 0.8; SCOPUS), 17(5), 1691-1697, 2008.

57. Liu, S, Wang, S., Tang, J., Yang, X., Chaos control in the Langford system, *Hunan Daxue Xuebao/Journal of Hunan University Natural Sciences* (ISSN: 10002472; SJR 0.2; SCOPUS), 35(4), 55-58, 2008.

58. Cui, Y., Liu, S., Tang, J., Meng, Y., Amplitude control of limit cycles in Langford system, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF: 2.042; SCOPUS), 42(1), 335-340, 2009.

59. Bean, R., Vibrational control of chaos in artificial neural networks, *PhD thesis* (Google Scholar), Rochester Institute of Technology, 2009.

60. Канатников, А., Крищенко, А., Инвариантье компакты динамических систем, Изд-во МГТУ им. Н. Баумана, 2011. (ISBN 978-5-7038-3486-2).

61. Belozyorov, V., Exponential algebraic maps and chaos in 3D autonomous quadratic systems, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF: 1.017; SCOPUS), 25(4), art. 1550048 (24 pages), 2015.

62. Юмагулов, М. Г., Габдрахманов, Р. И. (2022). О бифуркации двумерного тора в модели ЛЭнфорда, *Уфимская осенняя математическая школа*, Уфа, 28 сентября – 01 октября 2022 года, Том 2, стр. 105-107, 2022.

63. Yumagulov, M., Fazlytdinov, M., Gabdrahmanov, R., Langford model: Dynamics, bifurcations, attractors, *Lobachevskii Journal of Mathematics* (ISSN: 1995-0802; IF 0.7 Q2; SCOPUS), 44(5), 1953-1965, 2023.

64. Guo, G., Wang, J., Wei, M., Stability and Hopf bifurcation in the general Langford system, *Qualitative Theory of Dynamical Systems* (ISSN: 1662-3592; IF 1.4 Q1; SCOPUS), 22(4), 144, 2023.

65. Munteanu, F., Grin, A., Musafirov, E., Pranevich, A., Şterbeţi, C., About the Jacobi stability of a generalized Hopf–Langford system through the Kosambi–Cartan–Chern geometric theory, *Symmetry* (ISSN: 2073-8994; IF 2.94 Q1; SCOPUS), 15(3), 598, 2023.

Nikolov, S., First Lyapunov value and bifurcation behaviour of specific class three-dimensional systems, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274), 14(8), 2811-2823, 2004.

Цитирана от:

66. Lima, M., Llibre, J., Valls, C., Integrability of the Rucklidge system, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 3.009; SCOPUS), 77, 1441-1453, 2014.

67. Dong, Ch., Jia, L., Jie, Q., Li, H., Simbolic encoding of periodic orbits and chaos in the Rucklidge system, *Complexity* (ISSN:1076-2787; IF 3.642 Q1 SJR 0.67), 36(5), art. 41, 2021.

Nikolov, S., Clodong, S., Occurrence of regular, chaotic and hyperchaotic behavior in a family of modified Rossler hyperchaotic systems, *Chaos, Solitons & Fractals* (ISSN: 0960-0779), 22(2), 407-431, 2004.

Цитирана от:

68. Khan, A., Tyagi, A., Analysis and hyper-chaos control of a new 4D hyper-chaotic system by using optimal and adaptive control design, *Int. J. of Dynamics and Control* (ISSN: 2195-2698; SJR 0.327; SCOPUS), 5(4), 1147-1155, 2017.

69. Madani, M., Benkhaddra, I., Tanougast, G., Chitroub, S., Sieler, L., Digital implementation of an improved LTE stream cipher snow-3G based on hyperchaotic PRNG, *Security and Communication Networks* (ISSN: 1939-0122, IF 1.067; SCOPUS), 2017, art. ID 5746976, 15 pages, 2017.

70. Rajagopal, K., Jahanshahi, I., Varan, M., Bayir, I., Pham, V., Jafari, S., Karthikeyan, A., A hyperchaotic memristor oscillator with fuzzy based chaos control and LQR based chaos synchronization, *AEU-Int. J. of Electronics and Communications* (ISSN: 1434-8411; IF 2.115; SCOPUS), 94, 55-68, 2018.

71. Yi, L., Xiao, W., Yu, W., Wang, B., Dynamical analysis, circuit implementation and deep belief network control of new six-dimensional hyperchaotic system, *J. of Algorithms & Computational Technology* (ISSN: 1748-3018; SJR 0.162; SCOPUS), 12(4), 361-375, 2018.

72. Khan, A., Tyagi, A., Optimal and adaptive control of a new hyper-chaotic system about its unstable equilibrium points, *Journal of Uncertain Systems* (ISSN: 1752-8909; SJR 0.395; SCOPUS), 12(2), 91-104, 2018.

73. Jahanshahi, H., Yousefpour, A., Wei, Z., Alcaraz, R., Bekiros, S., A financial hyperchaotic system with coexisting attractors: dynamic investigation, entropy analysis, control and synchronization, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 2.213; SCOPUS), 126, 66-77, 2019.

74. Yousefpour, A., Jahanshahi, H., Fast disturbance-observer-based robust integral terminal sliding mode control of a hyperchaotic memristor oscillator, *The European Physical Journal Special Topic* (ISSN: 1951-6401; IF 1.66; SCOPUS), 228(10), 2247-2268, 2019.

75. Mehdi, S., Kadhim, A., Design and analysis of a novel five-dimensional hyper-chaotic system, *ICIC Express Letters, Part B: Applications* (ISSN: 2185-2766; SJR 0.147; SCOPUS), 11(1), 103-110, 2020.

76. Dong, E., Liu, G., Wang, Z., Chen, Z., Energy conservation, singular orbits, and FPGA implementation of two new Hamiltonian chaotic systems, *Complexity* (ISSN: 1099-0526; IF 2.591; SCOPUS), 2020, art. No 8693157(15 pages), 2020.

77. Stankevich, N., Kazakov, A., Gonchenko, S., Scenarios of hyperchaos occurence in 4D Rossler system, *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832; SCOPUS), 30(12), art. 123129, 2020.

78. Khan, A., Tyagi, A., Hybrid projective synchronization between two identical new 4D hyperchaotic systems via active control method, *Int. J. of Nonlinear Science* (ISSN: 1749-3889), 23(3), 142-150, 2017.

79. Madani, M., Benkhaddra, I., Tanougast, G., Chitroub, S., Sieler, L., FPGA implementation of an enhanced SNOW-3G stream cipher based on a hyperchaotic system, *Proceedings of 4th Int. Conference on Control, Decision and Inform. Technologies (CoDIT), 5-7 Aprill, Barcelona, Spain* (ISBN: 978-1- 5090-6465-6), 1168-1173, 2017.

80. Wang, M., Analysis and numerical simulation of a novel four-dimensional dynamic evolution system with multilayer chaotic attractors, *Int. J. of Signal Processing, Image Processing and Pattern Recognition* (ISSN: 2005-4254; Google Scholar), 6(4), 309-322, 2013.

81. Zhang, B., Li, H., A new four-dimensional autonomous hyperchaotic system and the synchronization of different chaotic systems by using fast terminal sliding mode control, Mathematical Problems in Engineering (ISSN: 1563-5147; IF 1.383; SCOPUS), 2013, art. No 179428 (8 pages), 2013.

82. Starkov, K., On the ultimate dynamics of the four-dimensional Rossler system, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 1.017; SCOPUS), 24(11), 1450149 (7 pages), 2014.

83. Sun, K., Ai, X., He, S., Design of multi-scroll hyperchaotic system and analysis of its characteristic, *Journal of Central South University (Science and Technology)* (ISSN: 1672-7207; SJR 0.257; SCOPUS), 46(5), 1663-1672, 2015.

84. Gao, T., Gu, Q., Chen, Z., Analysis of the hyper-chaos generated from Chen's system, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 2.042; SCOPUS), 39(4), 1849-1855, 2009.

85. Qi, G., van Wyk, M., van Wyk, B., Chen, G., A new hyperchaotic system and its circuit implementation, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 2.042; SCOPUS), 40(5), 2544-2549, 2009.

86. Cheng, Z.S., Xin, Y.M., Li, X.C., Xing, J.M., Synchronization and lag synchronization of chaotic networks, *Advances in Neural Networks, In: Book series-lectures Notes in Computer Science* (ISBN: 978-3-642-01509-0; Google Scholar), vol. 5552, Springer-Verlag, pp. 1197-1202, 2009.

87. Dong, G., Du, R., Tian, L., Jia, Q., A novel 3D autonomous system with different multilayer chaotic attractors, *Physics Letters, Section A: General, Atomic and Solid State Physics* (ISSN: 0375-9601; IF 1.831; SCOPUS), 373(42), 3838-3845, 2009.

88. Cheng, Z., Globally exponential lag synchronization of complex networks, *2^{nd} International Conference on Information and Computing Science*, ICIC 2009, Publisher IEEE (DOI 10.1109/ICIC.2009.431; Google Scholar), 3, 376-378, 2009.

89. Starkov, K., de la Cruz, J., Sincronization del sistema de Rossler de 4 dimensiones con otros sistemas, problema de retroalimentacion de salida y diseno de observadores, *VII Congreso Int. en Innovacion y Desarrallo Technologico*, 7 al 9 de octubre de 2009, Cuernavaca, Morelos, Mexico, pp. 407-411, 2009.

90. Starkov, K.E., Reyes, J.D., Some results on localization problem of compact invariant sets and synchronization problem of the four-dimensional Rossler system, *Proceedings of the VIII International Conference "Systems Identification and Control Problems" SICRO'09 Moscow, 26-30 January*, pp. 848-860, 2009.

91. Wang, X., Y., Gao, Y, F., Zhang, Y., X., Hyperchaos Qi system, *International Journal of Modern Physics B* (ISSN: 0217-9792; IF 0.402; SCOPUS), 24(24), 4771-4778, 2010.

92. Qiao, X., Sun, Y., Novel hyperchaotic attractor and its circuit realization, *International Conference on Electrical and Control Engineering*, Wuhan, China, 2010, 25-27 June (ISBN: 978-0-7695-4031-3; Google Scholar), 5361-5364, 2010.

93. Rui-Song, Y., Song-Xian, W., A 4D symmetric chaotic system and its application on image hiding, *Computer Technology and Development* (ISSN: 1673-629X; Google Scholar), 20(1), 93-96, 2010.

94. Zhou, P., Ding, R., A novel hyperchaotic system and its circuit implementation, *Key Engineering Materials* (ISSN: 1662-9795; Google Scholar), 467-469, 321-324, 2011.

95. Cheng, Z., Anti-synchronization and control of new Chen's hyperchaotic systems, *Lecture Notes in Computer Science* (ISSN: 0302-9743; Google Scholar), 6675, 125-131, 2011.

96 Cheng, Z., Cao, J., Synchronization of a growing chaotic network model, *Applied Mathematics and Computation* (ISSN: 0096-3003; IF 1.536; SCOPUS), 218(5), 2122-2127, 2011.

97. Tang, L., Zhao, L., Zhang, Q., A novel four-dimensional hyperchaotic system, *Applied Informatics and Communication: Communication in Computer and Information Science* (ISSN: 1865-0929; Google Scholar), 226(3), 392-401, 2011.

98. Cai, X., Finite time stabilization of a class of nonlinear systems and its applications, *Intelligent Control and Information Processing (ICICIP)* (ISBN 978-1-4577-0813-8; Google Scholar), 2^{nd} Int. Conf., Harbin China 25-28 July 2011, 1051-1054, 2011.

99. Wang, X., Wang, M., Chaotic control of Liu system with periodic parametric perturbations, *Int. J. of Modern Physics B* (ISSN: 0217-9792; IF 0.402; SCOPUS), 25(22), 3011-3017, 2011.

100. Wang, J., Chen, Z., Yuan, Z., The generation of a hyperchaotic system based on a three-dimensional autonomous chaotic system, *Chinese Physics B* (ISSN: 1674-1056; IF 0.8; SCOPUS), 15(6), 1216-1225, 2006.

101. Li, Q., Yang, X., A computer-assisted verification of hyperchaos in the Saito hysteresis chaos generator, *Journal of Physics A: Mathematical and General* (ISSN: 1361-6447; IF 0.4; SCOPUS), 39(29), 9139-9150, 2006.

102. Zhu, H., Yao, M., Synchronization of hyperchaotic systems with unknown parameters based on adaptive method, *Dynamics of continuous discrete and impulsive systems, Series A-Mathematical Analysis* (ISSN: 1201-3390; SJR 0.4; SCOPUS), 13, 869-873, 2006.
103. Wang, J., Chen, Z., Yuan, Z., The generation and analysis of a new four-dimensional hyperchaotic system, *Int. J. of Modern Physics C* (ISSN: 0217751X; SJR 0.4; SCOPUS), 18(6), 1013-1024, 2007.
104. Yan, Z., Yu, P., Globally exponential hyperchaos (LAG) synchronization in a family of modified hyperchaotic Rossler systems, *Int. J. of Bifurcation and Chaos* (ISSN: 0960-0779; IF 0.981; SCOPUS), 17(5), 1759-1774, 2007.
105. Xing-Yuan, W., Ming-Jun, W., Hyperchaotic Lorenz system, *Acta Physica Sinica* (ISSN: 1000-3290, IF 1.027; SCOPUS), 56(9), 5136-5142, 2007.
106. Gao, T., Chen, Z., Gu, Q., Yuan, Z., A new hyper-chaos generated from generalized Lorenz system via nonlinear feedback, *Chaos*, *Solitons & Fractals* (ISSN: 0960-0779, IF 1.267; SCOPUS), 35(2), 390-397, 2008.
107. Qi, G., van Wyk, M., van Wyk, B., Chen, G., On a new hyperchaotic system, *Physics Letters A* (ISSN: 0375-9601; IF 1.6; SCOPUS), 372(2), 124-136, 2008.
108. Szczepaniak, A., Macek, W.M., Unstable manifolds for the hyperchaotic Rossler system, *Physics Letters, section A: General, Atomic and Solid State Physics* (ISSN: 0375-9601, IF 1.766; SCOPUS), 372(14), 2423-2427, 2008.
109. Qi, G., Chen, G., Zhang, Y., On a new asymmetric chaotic system, *Chaos, Solitons & Fractals* (ISSN: 0960-0779, IF 1.267; SCOPUS), 37(2), 409-423, 2008.
110. Wang, X., Wang, M., A hyperchaos generated from Lorenz system, *Physica A: Statistical Mechanics and its Applications* (ISSN: 0378-4371; IF 1.5; SCOPUS), 387(14), 3751-3758, 2008.
111. Wang, X., Niu, D., Wang, M., Active tracking control of the hyperchaotic Lorenz system, *Modern Physics Letters B* (ISSN: 0217-9849, IF 0.474; SCOPUS), 22(19), 1859-1865, 2008.
112. Wang, J., Chen, Z., Chen, G., Yuan, Z., A novel hyperchaotic system and its complex dynamics, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF: 1.64; SCOPUS), 18(11), 3309-3324, 2008.
113. Yang, M., Dong, Ch., Sui, X., A new four-dimensional hyperchaotic system with hidden attractors and multistability, *Physica Scripta* (ISSN: 1402-4896; IF 2.9 Q2; SCOPUS), 98(12), 125261, 2023.

Nikolov, S., Transitional processes in some modified Rossler type dynamical systems, *Comptes rendus de l'Academie bulgare des Sciences* (ISSN: 1310-1331), 57(7), 45-52, 2004.

Цитирана от:

114. Zhu, H., Yao, M., Synchronization of hyperchaotic systems with unknown parameters based on adaptive method, *Dynamics of continuous discrete and impulsive systems, Series A-Mathematical Analysis* (ISSN: 1201-3390; SJR 0.4; SCOPUS), 13, 869-873, 2006.

Nikolov, S., An alternative bifurcation analysis of the Rose-Hindmarsh model, *Chaos*, *Solitons* & *Fractals* (ISSN: 0960-0779), 23(5), 1643-1649, 2005.

Цитирана от:

115. Musafirov, E., Admessible perturbations of the three-dimensional Hindmarsh-Rose neuron model, *J. of Applied Analysis & Computation* (ISSN: 2156-907X; SJR 0.39 Q2; SCOPUS), 13(4), 1668-1678, 2023.
116. Yao, Zh., Wang, Ch., Zhou, P., Ma, J., Regulating synchronous patterns in neurous and networks via field coupling, *Communications in Nonlinear Science and Numerical Simulation* (ISSN: 1007-5704; IF 4.115 Q1; SCOPUS), 95, 105583, 2021.
117. Hou, Zh., Ma, J., Zhan, X., Yang, L., Jia, Y., Estimate the electrical activity in a neuron under depolarization field, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 3.764 Q1; SCOPUS), 142, 110522, 2021.

118. Zhou, R., Zheng, Y., Analysis of dynamic transitions mechanism in the Hindmarsh-Rose system with method of geometric singular perturbation, *J. of Nanchang Hangkong University (Natural Sciences)* (ISSN: 1001-4926; Google Scholar), 30(3), 1-7, 2016.

119. Aldana, J.R., Sincronization utilizando el modelo neuronal de Hindmarsh-Rose acoplados con retardo: implementado en circuitos electronicos, *PhD thesis* (Google Scholar), Universidad de Guadalajara, Mexico, 2018.

120. Liu, X., Liu, Sh., Codimension-two bifurcation analysis in two-dimensional Hindmarsh-Rose model, *Nonlinear Dynamics* (ISSN: 0924-090X, IF 1.741; SCOPUS), 67(1), 847-857, 2012.

121. Zheng, Y.G., Wang, Z.H., Time-delay effect on the bursting of the synchronized state of coupled Hindmarsh-Rose neurons, *Chaos* (ISSN: 1089-7682; IF 2.076; SCOPUS), 22(4), 043127(6 pages), 2012.

122. Zheng, Y.G., Delay induced dynamical transitions in single Hindmarsh-Rose system, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274, IF 0.921; SCOPUS), 23(9), art. No 1350150 (11 pages), 2013.

123. Wu, Y., Li, F., Li, P., Derivation of isochronicity conditions for quasi-cubic homogeneous analytic systems, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274, IF 0.921; SCOPUS), 23(9), art. No 1350149 (11 pages), 2013.

124. Li, B., He, Zh., Bifurcations and chaos in a two-dimensional discrete Hindmarsh-Rose model, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 3.009; SCOPUS), 76(1), 697-715, 2014.

125. Li, B., He, Zh., 1:3 resonance and chaos in a discrete Hindmarsh-Rose model, *J. of Applied Mathematics* (ISSN: 1110-757X), 2014, art. ID 896478 (10 pages), 2014.

126. Li, B., He, Z., 1:2 and 1:4 resonances in a two-dimensional discrete Hindmarsh-Rose model, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 3.009; SCOPUS), 79(1), 705-720, 2015.

127. Jia, Q., Chen, Z., Complex data analysis of the Hindmarsh-Rose model at specific parameters, *Proceedings of the World Congress on Intelligent Control and Automation (WCICA)* (ISBN-978-1-4244-6712-9; Google Scholar), IEEE art. No 5554720, pp. 1963-1967, 2010.

128. Andrey, L., Chaotic dynamics in simple neuronal systems: Theory and applications, *Nonlinear Dynamics, Psychology, and Life Sciences* (ISSN: 1090-0578, IF 0.96; SCOPUS), 10(1), 1-20, 2006.

129. Starkov, K., Coria, L., Examples of localization of periodic orbits of polynomial systems, *2005 Int. Conf. on Physics and Control, PhysCon 2005, Proceedings*, 2005, 606-609, 2005.

130. Minelli, T., Balduzzo, M., Milone, F., Nofrate, V., Modeling cell dynamics under mobile phone radiation, *Nonlinear Dynamics, Psychology, and Life Sciences* (ISSN: 1090-0578, IF 0.96; SCOPUS), 11(2), 197-218, 2007.

131. Botha, A.E, Dednam, W., Computer assisted 'proof' of the global existence of periodic orbits in the Rossler system, *Proceedings of SAIP2014: The 59th Annual Conference of the South African Institute of Physics*, 571-577, 2014.

132. Coria de los Rios, L.N., Localizacion de orbitas periodicas para algunos sistemas de tres dimensiones continuos en el tiempo, *PhD thesis* (Google Scholar), Inst. Politecnico Nacional, 2008.

133. Em, Ph., A study of fixed points and Hopf bifurcation of Hindmarsh-Rose model, *Thu Dau Mot University Journal of Science* (ISSN: 2615-9635; Google Scholar), 2(1), 98-109, 2020.

Spassova, T., **Nikolov, S.,** A nonlinear multiparametric model of cloud dynamics and microphysics, *Atmospheric Research* (ISSN: 0169-8095), 78, 93-102, 2005.

Цитирана от:

134. Wacker, U., Nonlinear effects in a conceptual multilayer cloud model, *Nonlinear Processes in Geophysics* (ISSN: 1023-5809; IF 1.61; SCOPUS), 13(1), 99-107, 2006.

Nikolov, S., Kotev, V., Petrov, V., An alternative approach for investigating a time delay model of the JAK-STAT signaling pathway, *Comptes rendus de l'Academie bulgare des Sciences* (ISSN: 1310-1331), 58(8), 889-896, 2005.

135. Rateitschak, K., Wolkenhauer, O., Intracellular delay limits cyclis changes in gene expression, *Mathematical Biosciences* (ISSN: 0025-5564; IF 1.1; SCOPUS), 205, 163-179, 2007.

Nikolov, S., Stoytchev, S., A mathematical model of blood flow in an intracranial aneurysm. Analytical and numerical study, *J. of Mechanics in Medicine and Biology* (ISSN: 0219-5194), 6(2), 137-151, 2006.

Цитирана от:

136. Abbas, M. Bai, A., Rashidi, Y., Bhatti, M., Application of drug delivery in magnetohydrodynamics peristaltic blood flow of nano-fluid in a non-uniform channel. *Journal of Mechanics in Medicine and Biology* (ISSN: 0219-5194, IF 0.6; SCOPUS), 16(4), art. 1650052, 2016.

137. Bhatti, M., Zeeshan, A., Ijaz, N., Slip effects and endoscopy analysis on blood flow of particle-fluid suspension induced by peristaltic wave, *J. of Molecular Liquids* (ISSN: 0167-7322; IF 2.515; SCOPUS), 218, 240-245, 2016.

Nikolov, S., Clodong, S. Hyperchaos-chaos-hyperchaos transition in modified Rossler type systems, *Chaos, Solitons & Fractals* (ISSN: 0960-0779), 28(1), 252-263, 2006.

Цитирана от:

138. Wilczak, D., Serrano, S., Barrio, R., Coexistence and dynamical connections between hyperchaos and chaos in the 4D Rossler system: a computer-assisted proof, *SIAM Journal on Applied Dynamical Systems* (ISSN: 1536-0040; IF 1.25; SCOPUS), 15(1), 356-390, 2016.

139. Lai, Q., Norouzi, B., Liu, F., Dynamic analysis, circuit realization, control with coexisting attractors, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 2.213; SCOPUS), 114, 230-245, 2018.

140. Stankevich, N., Kuznetsov, A., Popova, E., Seleznev, E., Chaos and hyperchaos via secondary Neimark–Sacker bifurcation in a model of radiophysical generator, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 4.604 Q1; SCOPUS), 97(4), 2355-2370, 2019.

141. Kuptsov, P., Kuznetsov, S., Route to hyperbolic hyperchaos in a nonautonomous time-delay system, *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832 Q1; SCOPUS), 30(11), art. 113113, 2020.

142. Stankevich, N., Kazakov, A., Gonchenko, S., Scenarios of hyperchaos occurence in 4D Rossler system, *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832 Q1; SCOPUS), 30(12), art. 123129, 2020.

143. Yang, J., Feng, Z. & Liu, Z. A New five-dimensional hyperchaotic system with six coexisting attractors, *Qualitative Theory of Dynamical Systems* (ISSN: 1575-5460; IF 1.4; SCOPUS), 20(1), art. No 18, 2021.

144. Sataev, I. R., Stankevich, N. V., Cascade of torus birth bifurcations and inverse cascade of Shilnikov attractors merging at the threshold of hyperchaos. *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832 Q1; SCOPUS), 31(2), 023140, 2021.

145. Kuptsov, P., Kuznetsov, S., Transition to hyperbolic hyperchaos in a nonautonomous time-delay system, arXiv preprint arXiv:1908.08001, 2019 - arxiv.org, 2019.

146. Rossler, O., On the Rossler attractor, *Chaos Theory and Applications* (e-ISSN: 2687-4539; Google Scholar), 2(1), 1-2, 2020.

147. Zhao, Y., Zhang, T., Yang, D., Zhang, X., Fuzzy modeling and H_∞ synchronization of different hyperchaotic systems via T-S models, *Applied Mathematics & Information Sciences* (ISSN: 1935-0090, IF 0.508; SCOPUS), 7(1L), 193-200, 2013.

148. Chen, D., Han, W., Prediction of multivariate chaotic-time series via radial basis function neural network, *Complexity* (ISSN: 1076-2787, IF 1.02; SCOPUS), 18(4), 55-66, 2013.

149. Pang, S., Liu, Y., Zhu, C., Circuit implementation and application of hyperchaotic Lorenz system, *Computer Engineering and Applications* (ISSN: 1002-8331; Google Scholar), 49(7), 235-237, 2013.

150. Wang, M., Analysis and numerical simulation of a novel four-dimensional dynamic evolution system with multilayer chaotic attractors, *Int. J. of Signal Processing, Image Processing and Pattern Recognition* (ISSN: 2005-4254; Google Scholar), 6(4), 309-322, 2013.

151. Li, Q., Tang, S., Yang, X., Hyperchaotic set in continuous chaos-hyperchaos transition, *Commun Nonlinear Sci Numer Simulat* (ISSN: 1007-5704; IF 2.671; SCOPUS), 19(10), 3718-3734, 2014.
152. Starkov, K., On the ultimate dynamics of the four-dimensional Rossler system, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 1.017; SCOPUS), 24(11), 1450149 (7 pages) 2014.
153. Barrio, R., Martinez, M., Serrano, S., Wilczak, D., When chaos meets hyperchaos: 4D Rossler model, *Physics Letters A* (ISSN: 0375-9601; IF 1.683; SCOPUS), 379(38), 2300-2305, 2015.
154. Delavari, H., Shokrian, M., Fuzzy modeling and synchronization of a new hyperchaotic complex system with uncertainties, *J. of Applied and Computational Mechanics* (ISSN: 2383-4536; Google Scholar), 1(3), 134-144, 2015.
155. Wang, J., Chen, Z., Yuan, Z., The generation and analysis of a new four-dimensional hyperchaotic system, *Int. J. of Modern Physics C* (ISSN: 0129-1831; IF 0.92; SCOPUS), 18(6), 1013-1024, 2007.
156. Yan, Z., Yu, P., Globally exponential hyperchaos (LAG) synchronization in a family of modified hyperchaotic Rossler systems, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 0.981; SCOPUS), 17(5), 1759-1774, 2007.
157. Huaia, H., The research of 2D hyperchaotic mapping Newton iterative method to mechanism synthesis, *Machine Design and Research* (ISSN:1006-2343; Google Scholar), 23, 31-33, 2007.
158. Szczepaniak, A., Macek, W.M., Unstable manifolds for the hyperchaotic Rossler system, *Physics Letters, section A: General, Atomic and Solid State Physics* (ISSN: 0375-9601; IF 1.766; SCOPUS), 372(14), 2423-2427, 2008.
159. Qi, G., van Wyk, B., van Wyk, M., Analysis of new hyperchaotic system with two large positive Lyapunov exponents, *Journal of Physics: Conference Series* (ISSN: 0915-5287; IF 0.175; SCOPUS), 96(1), 012056, 2008.
160. Xiaobing, Z., Yue, W., Yi, L., Hongquan, X., Synchronization of hyperchaotic systems via active control, *ICCCAS 2007-International Conference on Communications, Circuits and Systems 2007*, art. number 4348237, 1094-1098, 2008.
161. Jia, Q., Hyperchaos synchronization between two different hyperchaotic systems, *J. of Information and Computing Science* (ISSN: 1548 – 7741; Google Scholar), 3(1), 73-80, 2008.
162. Zhou, X., Wu, Y., Li, Yi., Xue, H., Adaptive control and synchronization of a novel hyperchaotic system with uncertain parameters, *Applied Mathematics and Computation* (ISSN: 0096-3003; IF 1.349; SCOPUS), 203(1), 80-85, 2008.
163. Wang, J., Chen, Z., Chen, G., Yuan, Z., A novel hyperchaotic system and its complex dynamics, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 0.921; SCOPUS), 18(11), 3309-3324, 2008.
164. Guang, Zh. H., Yan, Zh., Wen, Y., Sheng, Y., A unified approach to fuzzy modeling and robust synchronization of different hyperchaotic systems, *Chinese Physics B* (ISSN: 1674-1056; IF 1.148; SCOPUS), 17(11), 4056-4066, 2008.
165. Wang, G., He, H., A new Rossler hyperchaotic system and its realization with systematic circuit parameter design, *Chinese Physics B* (ISSN: 1674-1056; IF 1.148; SCOPUS), 17(11), 4014-4021, 2008.
166. Zhou, Q., Chen, Z., Yuan, Z., Hyperchaos-chaos-hyperchaos transition in a class of on-off intermittent systems driven by a family of generalized Lorenz systems, *Chinese Physics Letters* (ISSN: 0256-307X; IF 0.6; SCOPUS), 25(9), 3169-3172, 2008.
167. Zhang, H., Zhao, Y., Yu, W., Yang, D., A unified approach to fuzzy modelling and robust synchronization of different hyperchaotic systems, *Chinese Physics B* (ISSN: 1674-1056; IF 1.148; SCOPUS), 17(11), 4056-4066, 2008.
168. Zhou, Q., Chen, Z., Yuan, Z, Blowout bifurcation and chaos-hyperchaos transition in five-dimensional continuous autonomous systems, *Chaos, Solitons & Fractals* (ISSN: 0960-0779, IF 1.24; SCOPUS), 40(2), 1012-1020, 2009.
169. Zhou, X., Wu, Y., Li, Y., Xue, H., Adaptive control and synchronization of a new modified hyperchaotic Lu system with uncertain parameters, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 1.24; SCOPUS), 39(5), 2477-2483, 2009.

170. Zhao, Y., Han, X., Sun, Q., Robust fuzzy synchronization control for a class of hyperchaotic systems with parametric uncertainties, *4th IEEE Conference on Industrial Electronics and Applications*, ICIEA 2009, art. number 513836, 1149-1153, 2009.
171. Shuhua, W., Huaishau, L., Kai, C., Adaptive control and synchronization of a new uncertain hyperchaotic Lorenz system based on parameter identification, *Int. Forum on Inform. Technology and Applications*, 3, 507-510, 2009.
172. Xu, M., Zhao, Y., Han, X., Zhang, Y., Generalized asymptotic synchronization between chen hyperchaotic system and liu hyperchaotic system: a fuzzy modeling method, *Chinese Control and Decision Conference, CCDC 2009*, art. number 5195081, 361-366, 2009.
173. Feng, M.K., Qiu, S.S., Liu, X.Y., Jin, J.X., Research on test of random-like property of chaotic sequences in image encryption, *5th International Conference on Natural Computation, ICNC 2009*, 5, 500-504, art. No 5366609, 2009.
174. Wang, S., Liu, H., Cui, K., Adaptive control and synchronization of a new uncertain hyperchaotic Lorenz system based on parameter identification, *Proceedings-2009 International Forum on Information Technology and Applications, IFITA 2009*, 3, 507-510, art. No 5232172, 2009.
175. Starkov, K., de la Cruz, J., Sincronization del sistema de Rossler de 4 dimensiones con otros sistemas, problema de retroalimentacion de salida y diseno de observadores, *VII Congreso Int. en Innovacion y Desarrallo Technologico*, 7 al 9 de octubre de 2009, Cuernavaca, Morelos, Mexico, 407-411, 2009.
176. Starkov, K.E., Reyes, J.D., Some results on localization problem of compact invariant sets and synchronization problem of the four-dimensional Rossler system, *Proceedings of the VIII International Conference "Systems Identification and Control Problems" SICRO'09 Moscow, 26-30 January*, 848-860, 2009.
177. Gu, Q., Gao, T., Analysis of transition between chaos and hyper-chaos of an improved hyper-chaotic system, *Chinese Physics B* (ISSN: 1674-1056; IF 1.148; SCOPUS), 18(1), 84-90, 2009.
178. Aswad, M., Irawan, M., Pengendalian chaos menggunakan sliding mode control (SMC) padasistem persamaan Rossler yang termodifikasi, *Gamatika* (ISSN: 2087-6162; Google Scholar), 1(1), 55-65, 2010.
179. Liu, L., Liu, Ch., Zhang, Y., Theoretical analysis and circuit implementation of a novel complicated hyperchaotic system, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 1.741; SCOPUS), 66(4), 707-715, 2011.
180. Ahmad, I., Simple chaotic jerk, hyperjerk, and hyperchaotic hyperjerk cirkuits and systems: families of self-excited and hidden attractors, *PhD thesis* (Google Scholar), Sirindhorn International Institute of Technology, Thammasat University, Thailand, 2020.
181. Monkam, Y., Kingni, S., Tchitnga, R., Woafo, P., Electronic simulation microcontroller real implementation of an autonomous chaotic and hyperchaotic system made of a Colpitts-Josephson junction like circuits, *Analog Integrated Circuits and Signal Processing. An International Journal* (ISSN: 0925-1030; IF 1.337 Q4; SCOPUS), 110(3), 395-407, 2022.
182. Petrzela, J., Chaotic and hyperchaotic dynamics of a clapp oscillator, *Mathematics* (ISSN: 2227-7390; IF 2.592 Q1 SJR 0.495 Q1; SCOPUS), 10(11), 1868, 2022.
183. Petrzela, J., Canonical hyperchaotic oscillators with single generalized transistor and generative two-terminal elements, *IEEE Access* (ISSN: 2169-3536; SJR 0.93 Q1; SCOPUS), 10, 90456-466, 2022.
184. Madani, M., Assad, S., Dridi, F., Lozi, R., Enhanced design and hardware implementation of a chaos-based block cipher for image protection, *Journal of Difference Equations and Applications* (ISSN: 1563-5120; IF 1.476 Q2; SCOPUS), 29(9-12), 1408-1428, 2023.
185. Petrzela, J., Chaotic steady state of the Reinartz oscillator: mathematical evidence and experimental confirmition, *Axioms* (EISSN: 2075-1680; IF 2.0 Q1; SCOPUS), 12(12), 1101, 2023.

Nikolov, S., Estimating of bifurcations and chaotic behavior in a four-dimensional system, *Journal of the Calcutta Mathematical Society*, 2(1), 17-28, 2006.

Цитирана от:

186. Kotev, V., Dynamical behavior of a time delay model of the ERK and STAT5 interaction, *BioPS'07, November 6-7*, pp.III.29-III.38, 2007.

187. Котев, В., Динамичен анализ на времезакъснителни модели в молекулярната биомеханика, Дисертация, 2008.

Nikolov, S., Yankulova, E., Nikolova, A., Petrov, V., Stability and Structural Stability (robustness) in Computational systems Biology, *Journal of the Bulgarian Academy of Sciences* (ISSN: 0007-3989), 69(6), 21-29, 2006.

Цитирана от:

188. Kotev, V., Dynamical behavior of a time delay model of the ERK and STAT5 interaction, *BioPS'07, November 6-7*, pp.III.29-III.38, 2007.

189. Котев, В., Динамичен анализ на времезакъснителни модели в молекулярната биомеханика, Дисертация, 2008.

Nikolov, S., Stoytchev, St., Bozhov, B., Mathematical model of blood flow pulsations in the circle of Willis, *Comptes rendus de l'Academie bulgare des Sciences* (ISSN: 1310-1331), 59(8), 831-840, 2006.

Цитирана от:

190. Kotev, V., Dynamical behavior of a time delay model of the ERK and STAT5 interaction, *BioPS'07, November 6-7*, pp.III.29-III.38, 2007.

191. Момчил Ненов, *PhD-thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Georgiev, G., Kotev, V., Wolkenhauer, O., Stability analysis of a time delay model for the JAK-STAT signaling pathway, *Series on Biomechanics* (ISSN: 1313-2458), 23(1), 52-65, 2007.

Цитирана от:

192. Rigatos, G., Abbaszadeh, M., Nonlinear optimal control for a cells signalling pathway model under time-delays, 2018 UKACC 12th Int. Conference on Control (CONTROL), 5-7 September, Sheffield, UK, pp. 254-259, 2018.

193. Schmidl, D., Bayesian model inference in dynamic biological systems using Markov chain Monte Carlo methods, *PhD thesis* (220 pages)(Google Scholar), Technical University Munchen, 2012.

194. Kondofersky, I., Fuchs, Ch., Theis, F., Identifying latent dynamic components in biological systems, *IET Systems Biology* (ISSN: 1751-8849; IF 2.13; SCOPUS), 9(5), 193-203, 2015.

Nikolov, S., Petrov, V., Time delay model of *RNA* silencing, *J. of Mechanics in Medicine and Biology* (ISSN: 0219-5194), 7(3), 297-314, 2007.

Цитирана от:

195. Neofytou, G., Kyrychko, Y., Blyuss, K., Time-delay model of RNA interference, *Ecological Complexity* (ISSN: 1476-945X; IF 1.784; SCOPUS), 30, 11-25, 2017.

196. Neofytou, G., Mathematical models of RNA interference in plants, *PhD thesis* (Google Scholar), University of Sussex, UK, 2016.

197. Anderssen, R., Waterhouse, P., Modeling antiviral resistance in plants, *Methods in Molecular Biology* (ISSN: 1064-3745; IF 13.9; SCOPUS), 894, 139-154, 2012.

198. Tan, J., Pan, R., Qiao, L., Zou, X., Pan, Z., Modeling and dynamical analysis of virus-triggered innate immune signaling pathways, *Plos ONE* (ISSN: 1932-6203; IF 4.092; SCOPUS), 7(10), e48114, 2012.

199. Yu, T., Zhang, X., Zhang, G., Su, M., Hopf bifurcation analysis for a model of RNA silencing with two delays, *26 th Chinese Control and Decision Conference 2014 (CCDC)* (ISBN: 978-1-4799-3706-6; Google Scholar), 31 May-2 June Changsha, China, 3167-3172, 2014.

Nikolov, S., Yankulova, E., Wolkenhauer, O., Petrov, V., Principal difference between stability and structural stability (robustness) as used in systems biology, *Nonlinear Dynamics, Psychology, and Life Sciences* (ISSN: 1090-0578), 11(4), 413-433, 2007.

Цитирана от:

200. Blanchini, F., Giordano, G., Polyhedral Lyapunov functions for structural stability of biochemical systems in concentration and reaction coordinates, *Proceedings of the IEEE Conference on Decision and Control* (ISBN: 978-147997-886; ISSN: 0191-2216 SJR 0.462; SCOPUS), February 2016, Osaka Japan, art. No 7402687, 3110-3115, 2016.

201. Giordano, G., Samaniego, C., Franco, E., Blanchini, F., Computing the structural influence matrix for biological systems, *J. of Mathematical Biology* (ISSN: 0303-6812; IF 2.963; SCOPUS), 72(7), 1927-1958, 2016.

202. Blanchini, F., Giordano, G., Polyhedral Lyapunov functions structurally ensure global asymptotic stability of dynamical networks if the Jacobian is non-singular, *Automatica* (ISSN: 0005-1098; IF 5.451 Q1; SCOPUS), 86, 183-191, 2017.

203. Paulino, N., Foo, M., Kim, J., Bates, D., Uncertainly modeling and stability robustness analysis of nucleic acid-based feedback control systems, *Proceedings of the IEEE Conference on Decision and Control* (ISSN: 0191-2216; SJR 0.591; SCOPUS), 8619072, 1077-1082, 2019.

204. Blanchini, F., Giordano, G., Structural analysis in biology: a control-theoretical approach, *Automatica* (ISSN: 0005-1098; IF 5.541 Q1; SCOPUS), 126, art. Num. 109376, 2021.

205. Giordano, G., Structural analysis and control of dynamical networks, *PhD thesis* (Google Scholar), University of Udine, 2016.

206 Boniolo, G., Andreoletti, M., Boem, F., Ratti, R., The main faces of robustness, *Dialogue and Universalism* (ISSN: 1234-5792; Google Scholar), 6(3), 157-192, 2017.

207. Bianchini, F., Samaniego, C., Franco, E., Giordano, G., Aggregates of positive impulse response systems: a decomposition approach for complex networks, *2017 IEEE 56th Annual Conference on Decision and Control, CDC 2017* (ISBN: 978-150902873-3), *vol.2018-January*, 1987-1992, 2018.

208. Caianiello, S., Prolegomena to a history of robustness, In: Biological robustness. Emerging perspectives from within the life sciences (ISBN: 978-3-030-01197-0), chapter 2, 23-54, Springer, 2018.

209. Pereira, B., de Souza Junior, T.P., Fadiga e exercício físico: Aspectos metabólicos, bioenergéticos e moleculares (ISBN: 978-85-7655-735-7), *Phorte Editora*, San Paulo, 2019.

210. Luchetti, M., Scientific Coordination beyond the A Priori: A Three-dimensional Account of Constitutive Elements in Scientific Practice, *PhD thesis* (Google Scholar), Central European University, Vienna, Austria, 2020.

211. La Mantia F. (2020) Structural Stability. In: Vercellone F., Tedesco S. (eds) Glossary of Morphology. *Lecture Notes in Morphogenesis* (ISBN 978-3-030-51324-5), 487-489. Springer, Cham., 2020.

212. Marcum, J.A., Conceptual foundations of Systems Biology: An Introduction, *Book Series: Systems Biology Theory Techniques and Applications* (ISBN: 978-1-60741-867-2; Google Scholar), Nova Science Publishers, NY, 1-155, 2009.

213. Gustafsson, M., Gene networks from high-throughput data-reverse engineering and analysis, *Ph.D. thesis* (Google Scholar), *No 1301, Linkoping University, Institute of Technology, Department of Science and Technology, Norrkoping, Sweden*, 2010.

214. Vengerov, A., Klein, S., The use of the High-level feature space in systems requirement engineering and management, *Int. J. of Technology, Knowledge & Society* (ISSN: 1832-3669; SJR 0.1; SCOPUS), 6(6), 1-14, 2010.

215. Gustafson, M., Hornquist, M., Stability and flexibility from a system analysis of gene regulatory networks based on ordinary differential equations, *The Open Bioinformatics Journal* (ISSN 1875-0362; Google Scholar), 5, 26-33, 2011.

216. Blanchini, F., Franco, E., Structurally robust biological networks, *BMC Systems Biology* (ISSN: 1752-0509; IF 3.565; SCOPUS), 5, 74-87, 2011.

217. Franco, E., Analysis, desing, and in vitro implementation of robust biochemical networks, *PhD thesis* (Google Scholar), 167 pages, California Institute of Technology Pasadena, California, 2012.

218. Franco, E., Blanchini, F., Structural properties of the MAPK pathway topologies in PC12 cells, *J. of Mathematical Biology* (ISSN: 0303-6812; IF 2.963; SCOPUS), 67(6-7), 1633-1668, 2013.
219. Blanchini, F., Giordano, G., Piecewise-linear Lyapunov functions for structural stability of biochemical networks, *Automatica* (ISSN: 0005-1098; IF 3.132; SCOPUS), 50(10), 2482-2493, 2014.
220. Blanchini, F., Franco, E., Structural analysis of biological networks, In: *A systems theoretical approach to systems and synthetic biology I: Models and system characterization* (ISBN: 978-94-017-9040-6), Chapter 1, Springer Netherlands, pp. 47-71, 2014.
221. Blanchini, F., Giordano, G., Structural stability of biochemical networks:quadratic vs. polyhedral Lyapunov functions, *Proceedings of the 8th IFAC Symposium on Robust Control Design, Bratislava, Slovak Republik, July 8-11*, 2015, IFAC Papers OnLine (ISSN: 2405-8963; SJR 0.211; SCOPUS), 48(14), 278-283, 2015.
222. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.
223. Parigini, C., Mathematical modeling of cell fate dynamics in homeostasis, *PhD thesis* (Google Scholar), University of Southampton-UK, 2022.
224. Galbraith, E., Whispers in murky waters: bacterioplankton interaction networks underpinning ecosystem health, *PhD thesis* (Google Scholar), Hokkaido University, Sapporo, Japan, 2022.
225. Luo, Y., Transcriptional regulation of fresh fruit development and ripening (ISBN: 978-13-941-8769-0, SCOPUS), 2023.
226. Galbraith, E., Convertino, M., The Eco-Evo mandala: simplifying bacterioplankton complexity into ecohealth signatures, *Entropy* (ISSN: 1099-4300; IF 2.524 Q1; SCOPUS), 23(11), 1471, 2021.
227. Zimatore, G., Tsuchiya, M., Hashimoto, M., Kasperski, A., Giuliani, A., Self-organization of whole-gene expression through coordinated chromatin structural transition, *AIP Biophysics Reviews* (ISSN: 2688-4089; SCOPUS), 2(3), 031303, 2021.
228. Colombo, M., Palacios, P., Non-equilibrium thermodynamics and the free energy principle in biology, *Biology & Philosophy* (ISSN: 0169-3867; IF 1.461 Q1 SJR 0.67; SCOPUS), 36(5), art. 41, 2021.
229. Marcum, J.A., The conceptual foundations in Systems medicine (ISBN: 979-889113547; SCOPUS), Nova Science Publisher Inc., pages 1-287, 2024.

Kotev, V., **Nikolov, S.,** Stability analysis of time delay model of crosstalk between ERK and STAT5a interaction, *Int. J. Bioautomation* (ISSN: 1312-451X), 7, October, 90-98, 2007.

Цитирана от:

230. Kader, Z., Zheng, G., Barbot, J.-P., Finite-time and asymptotic left inversion of nonlinear time-delay systems, *Automatica* (ISSN: 0005-1098; IF 5.451 Q1; SCOPUS), 95, 283-291, 2018.
231. Nikolova, E., Jordanov, I., Vitanov, N., On nonlinear dynamics of the STAT5a signalling protein, *BIOMATH* (ISSN: 1314-7218; Google Scholar), 3(1), 1-11, 2014.

Nikolov, S., Vera, J., Kotev, V., Wolkenhauer, O., Petrov, V., Dynamic properties of a delayed protein cross talk model, *BioSystems* (ISSN: 0303-2647), 91, 51-68, 2008.

Цитирана от:

232. Cao, X., Song, Y., Zhang, T., Hopf bifurcation and delay-induced Turing instability in a diffusive lac operon model, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 1.355; SCOPUS), 26(10), 1650167 (22 pages), 2016.
233. Alrikaby, Z., Stability and Hopf bifurcation analysis of lac Operon model with distributed delay and nonlinear degradation rate, *Mathematical Medicine and Biology: A Journal of the IMA* (ISSN: 1477-8599; IF 1.4; SCOPUS), 36(4), 489-512, 2019.
234. Alrikaby, Z. Liu, X., Zhang, T., Frascoli, F., Stability and Hopf bifurcation analysis for a Lac operon model with nonlinear degradation rate and time delay, *Mathematical Biosciences and Engineering* (ISSN: 1547-1063; IF 1.23; SCOPUS), 16(4), pp. 1729-1749, 2019.

235. Ghosh, M., Basir, F., Roy, P., Datta, S., Nandi, S., Modeling of a delay induced biochemical system for product optimization, *Commun. in Optim. Theory* (ISSN: 2051-2953; Google Scholar), 2017, article ID 8 (23 pages), 2017.

236. von Stosch, M., Carinhas, N., Oliveira, R., Hybrid modeling for Systems biology: Theory and practice, In: Large-scale networks in engineering and life sciences (ISBN: 978-3-319-08436; Google Scholar), *Springer Int. Publishing Switzerland*, pp. 357-388, 2014.

237. Benner, P., Findeisen R., Flockerzi, D., Reichl, U., Sundmacher, K., Large-scale networks in engineering and life sciences (ISBN: 978-3-319-08436), *Springer Int. Publishing Switzerland*, 2014.

238. Ben Halim, A., Ahmed, A., Busawan, K., Angelova, M., Stochastic stability and observer design for the lac operon model, In: Control, Engineering & Information Technology (CEIT), 2015 *3rd International Conference on IEEE* (ISBN: 978-147998212-7; Google Scholar), pp. 1-6, 2015.

239. Yang, Y., Lee, KS., Xiang, C., Lin, H., Biological mechanisms revealed by a mathematical model for p53-Mdm2 core regulation, *IET Systems Biology* (ISSN: 1751-8849; IF 2.13; SCOPUS), 3, 4, 229-238, 2009.

240. Hormiga, J., Gonzalez-Alcon, C., Sevilla, A., Canovas, M., Torres, N., Quantitative analysis of the dynamic signaling pathway involved in the cAMP mediated induction of I-carnitine biosynthesis in E. coli cultures, *Molecular BioSystems* (ISSN: 1742-206X, IF 3.35; SCOPUS), 6(4), 699-710, 2010.

241. Zhuang, K., Zhu, H., Periodic oscillations for a model of gene expression with delay, *Proceedings-2010 3rd International Conference on Biomedical Engineering and Informatics* (ISBN: 978-1-4244-6495-1) (Google Scholar), BMEI 2010, art. No 5639793, pp. 2423-2425, 2010.

242. Tang, B., Chen, S., Jin, V., Integrative identification of core genetic regulatory modules via a structural model-based clustering method, *Int. J. of Computational Biology and Drug Design* (ISSN: 1756-0756; Google Scholar), 4(2), 127-146, 2011.

243. von Stosch, M., Novel strategies for process control based on hybrid semi-parametric mathematical systems (Google Scholar), *PhD thesis*, Porto, September, 2011.

244. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Stability and bifurcation behavior of genetic regulatory systems with two delays, *Comptes rendus de l'Academie bulgare des Sciences* (ISSN: 1310-1331), 61(5), 585-594, 2008.

Цитирана от:

245. Zhang, X., Wang, Ya., Wu, L., Stability analysis of delayed GRNs, *Studies in Systems, Decision and Control* (ISSN: 2198-4182; SJR 0.102; SCOPUS), In: Analysis and design of delayed genetic regulatory networks, Springer, 207, 57-80, 2019.

246. Yu, T., Zhang, X., Zhang, G., Su, M., Hopf bifurcation analysis for a model of RNA silencing with two delays, *26 th Chinese Control and Decision Conference 2014 (CCDC)* (ISBN: 978-1-4799-3706-6; Google Scholar), 31 May-2 June Changsha, China, 3167-3172, 2014.

247. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Dynamics and complexity in a time delay model of RNA silencing with periodic forcing, *Int. J. Bioautomation* (ISSN: 1312-451X), 10, 1-12, 2008.

Цитирана от:

248. El-Sayed, A., Khalil, M., Arafa, A., Sayed, A., Numerical behaviour of a fractional order dynamical model of RNA silencing, *Int. J. of Scientific World* (ISSN: 2307-9037; Google Scholar), 4(2), 52-56, 2016.

249. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Lai, X., Wolkenhauer, O., Vera, J., Time delay and protein modulation analysis in a model of RNA silencing, *Communications of SIWN Journal* (ISSN: 1757-4439), 6, 111-117, 2009.

Цитирана от:

250. Neofytou, G., Kyrychko, Y., Blyuss, K., Time-delay model of RNA interference, *Ecological Complexity* (ISSN: 1476-945X; IF 1.784; SCOPUS), 30, 11-25, 2017.

251. Nikolova, E., Petrov, V., Edisonov, I., Dynamical modelling of RNA interference and its application to cancer therapy. A review, *Series on Biomechanics* (ISSN: 1313-2458; Google Scholar), 24(1), 44-60, 2009.

252. Neofytou, G., Mathematical models of RNA interference in plants, *PhD thesis* (Google Scholar), University of Sussex, UK, 2016.

253. Li, C., Y Pei, Y., Liu, Z., Zhang, R., Optimal impulsive control in RNA interference mediated by exogenous dsRNA with physiological delays, *International Journal of Biomathematics* (ISSN: 1793-5245; IF 2.2 Q2; SCOPUS), in press, 2024.

Nikolov, S., Vera, J., Rath, O., Kolch, W., Wolkenhauer, O., The role of inhibitory proteins as modulators of oscillations in NF*k*B signalling, *IET Systems Biology* (ISSN: 1751-8849), 3(2), 59-76, 2009.

Цитирана от:

254. Megaridis, M., Lu, Y., Tevonian, E., Junger, K., Moy, J., Bohn-Wippert, K., Dar, R., Fine-tuning of noise in gene expression with nucleosome remodeling, *APL Bioengineering* (ISSN: 2473-2877; Google Scholar), 2(2), 026106, 2018.

255. Tummala, H., Goltsov, A., Khalil, H., Sproul, A., Scott, F., et al., Advocating the need of a systems biology approach for personalized prognosis and treatment of B-CLL patients, *Biodiscovery* (ISSN: 2050-2966; Google Scholar), 6(4), 15 pages, DOI:10.7750/BioDiscovery.2012.6.4, 2012.

256. Voit, E.O., Biochemical systems theory: a review, *ISRN Biomathematics* (ISSN: 2090-7702; Google Scholar), 2013, art. ID 897658 (53 pages), 2013.

257. Miranda, J., On the effect of circadian oscillations on biochemical cell signaling by NF-kB, *Journal of Theoretical Biology* (ISSN: 0022-5193; IF 2.351; SCOPUS), 335, 283-294, 2013.

258. Ichikawa, K., Ohshima, D., Sagara, H., Regulation of signal transduction by spatial parameters: a case in NF-kB oscillation, *IET Systems Biology* (ISSN: 1751-8849; IF 2.13; SCOPUS), 9(2), 41-51, 2015.

259. Ohshima, D., Ichikawa, K., Regulation of NF-kB oscillation by nuclear transport: mechanisms determining the persistency and frequency of oscillation, *PLoS ONE* (ISSN: 1932-6203; IF 3.534; SCOPUS), 10(6), e0127633, 17 pages, 2015.

260. Lu, Y., Fundamentals and control of stochastic decision-making in HIV, *PhD thesis* (Google Scholar), University of Illinois Urbana-Champaign, USA, 2022.

Nikolov, S., Complex oscillatory behavior in a delayed protein cross talk model with periodic forcing, *Chaos, Solitons & Fractals* (ISSN: 0960-0779), 42(1), 385-395, 2009.

Цитирана от:

261. Shieh, C.S., Hung, R.T., Hybrid control for synchronizing a chaotic system, *Applied Mathematical Modelling* (ISSN 0307-904X; IF 1.371; SCOPUS), 35(8), 3751-3758, 2011.

262. Zhang, Zh., Ye, W., Qian, Y., Zheng, Zh., Huang, X., Hu, G., Chaotic motifs in gene regulatory networks, *Plos ONE* (ISSN: 1932-6203; IF 4.092; SCOPUS), 7(7), e39355. doi10.1371, 2012.

263. Yin, J., Xing, Q., Zhao, L., Vibration, oscillation and escape of the fiber-optic signal under two-frequency perturbations, *ISRN Mathematical Physics* (ISSN: 2090-4681; Google Scholar), 2014(2014), Art. ID 165250 (6 pages), 2014.

Lai, X., **Nikolov, S.**, Wolkenhauer, O., Vera, J., A multi-scale model accounting for the effects of JAK2-STAT5 signalling modulation in erythropoiesis, *Computational Biology and Chemistry* (ISSN: 1476-9271), 33(4), 312-324, 2009.

Цитирана от:

264. Ozbay, H., Bonnet, C., Benjelloun, H., Clairambault, J., Stability analysis of cell dynamics in leukemia, *Mathematical Modelling of Natural Phenomena* (ISSN: 0973-5348; IF 0.714; SCOPUS), 7(1), 203-234, 2012.

265. Voit, E.O., Biochemical systems theory: a review, *ISRN Biomathematics* (ISSN: 2090-7702; Google Scholar), 2013, art. ID 897658 (53 pages), 2013.

266. Edwards, L, Thiele I, Applying systems biology methods to the study of human physiology in extreme environments, *Extreme Physiology & Medicine* (ISSN: 2046-7648; Google Scholar) 2(1), 8 (8 pages), 2013.

267. Tee, S., Domain analysis of IL-1 receptor associated kinase 1, *Review of Bioinformatics and Biometrics* (ISSN: 2326-5825; Google Scholar), 2(1), 10-15, 2013.

268. Maus, C., Toward accessible multilevel modelling in Systems Biology: A rule-based language concept (ISBN: 978-3-8325-3516-2; Google Scholar), Logos Verlag Berlin, 2013.

269. Luo, Y., Wang, Y., Lu., H., Gao, Y., Ome on the range: update on high-altitude acclimatization/adaptation and disease, *Molecular BioSystems* (ISSN: 1742-206X; IF 3.35; SCOPUS), 10(11), 2748-2755, 2014.

270. Larina, I., Ivanisenko, V., Nikolaev, E., Grigorev, A., The proteome of a healthy human during physical activity under extreme conditions, *Acta Naturae* (ISSN: 2075-8251; IF 0.796; SCOPUS), 6(22), 66-75, 2014.

271. Cheng, M., Chen, L., Niu, H., Yang, T., Lin, K., Cheng, J., Signals mediating Klotho-induced neuroprotection in hippocampal neuronal cells, *Acta Neurobiologicae Experimentalis* (ISSN: 0065-1400; IF 2.244; SCOPUS), 75, 60-71, 2015.

272. Bittig, A., Uhrmacher, A., Spatial modeling in cell biology at multiple levels, *Proceedings of the 2010 Winter Simulation Conference* (ISSN 0891-7736, SJR 0.388; SCOPUS), WSC'10', Baltimore, 5-8 December, art No 5679125, 608-619, 2010.

273. He, J., Zhao, Y., Zhu, T., Xue, P., Zheng, W., et al., Mercury chloride impacts on the development of erythrocytes and megakaryocytes in mice, *Toxics* (ISSN: 2305-6304, IF 4.146 Q1; SCOPUS), 9(10), 252, 2021.

Nikolov, S., Lai, X., Liebal, U., Wolkenhauer, O., Vera, J., Integration of sensitivity and bifurcation analysis to detect critical biochemical processes in cell signalling pathway, *International Journal of Systems Sciences* (ISSN: 1464-5319), 41(1), 81-105, 2010.

Цитирана от:

274. van Voorn, G., Kooi, B., Combining bifurcation and sensitivity analysis for ecological models, *The European Physical J. Special Topics* (ISSN: 1951-6401, IF 1.862; SCOPUS), 226, 2101-2118, 2017.

275. Kolokolov, Yu., Monovskaya, A., Bagrov, V., Analytics on nonlinear phenomena in dynamics of hysteresis regulators with double synchronization, *2019 International Siberian Conference on Control and Communications* (ISBN: 978-153865141-4; SCOPUS), SIBCON 2019 – *Proceedings April* 2019, IEEE Publ., Article number 8729622, 2019.

276. Encarnacion Segura, A.E., Cellular decision-making models in yeast, *PhD thesis* (Google Scholar), University of Sheffield, United Kingdom, 2020.

277. González, R. C. (2021). Integracion de analisis de sensibilidad y analisis de bifurcacion en el estudio de un modelo matematico, *PhD thesis* (Google Scholar), Universidad Autonoma del Estado de Morelos, 2021.

278. Voit, E.O., Biochemical systems theory: a review, *ISRN Biomathematics* (ISSN: 2090-7702; Google Scholar), 2013, art. ID 897658 (53 pages), 2013.

279. Acharya, U., Faust, O., Chista, D., Sree, S., Alvin, A., et al., A systems approach to cardiac health diagnosis, *J. of Medical Imaging and Health Informatics* (ISSN: 2156-7018; IF 0.642; SCOPUS), 3(2), 261-267, 2013.

280. Erguler, K., Stumpf, M., Practical limits for reverse engineering of dynamical systems: a statistical analysis of sensitivity and parameter inferability in systems biology models, *Molecular BioSystems* (ISSN: 1742-206X, IF 3.825; SCOPUS), 7(5), 1593-1602, 2011.

281. Shiraishi, F., Egashira, M., Iwata, M., Highly accurate computation of dynamic sensitivities in metabolic reaction systems by a Taylor series method, *Mathematical Biosciences* (ISSN: 0025-5564; IF 1.593; SCOPUS), 233(1), 59-67, 2011.

282. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Vera, J., Schmitz, U., Wolkenhauer, O., A model-based strategy to investigate the role of microRNA regulation in cancer signalling networks, *Theory in Biosciences* (ISSN: 1431-7613), 130(1), 55-69, 2011.

Цитирана от:

283. Proctor, C., Smith, G., Computer simulation models as a tool to investigate the role of miRNAs in osteoarthritis, *PloS ONE* (ISSN: 1932-6203; IF 3.534; SCOPUS), 12(11), e0187568, 2017.

284. Song, Y., Cao, X., Zhang, T., Bistability and delay-induced stability switches in a cancer network with the regulation of microRNA, *Commun. Nonlinear Sci. Num. Simulations* (ISSN: 1007-5704; IF 2.784 Q1; SCOPUS), 54, 302-319, 2018.

285. Jurisic, V., Multiomic analysis of cytokines in immuno-oncology, *Expert Review of Proteomics* (ISSN: 1478-9450; IF 3.614; SCOPUS), 17(9), 663-674, 2020.

286. Voropaeva O.F., Lisachev P.D., Senotrusova S.D., Shokin Y.I., Hyperactivation of the p53–MicroRNA Signaling Pathway: Mathematical Model of Variants of Antitumor Therapy, *Mathematical Biology and Bioinformatics* (ISSN: 1994-6538; Google Scholar), 14(1), 355-372, 2019.

287. Zhdanov, V.P., Kinetic models of gene expression including non-coding RNAs, *Physics Reports* (ISSN: 0370-1573, IF 19.438 Q1; SCOPUS), 500(1), 1-42, 2011.

288. Ke, Ch., Xiang, L., Study of utilizing green fluorescent protein to analyze microRNAs targets, *Chongqing Medical Journal* (ISSN: 1671-8348; Google Scholar), 24(5), 453-454, 2012.

289. Wang, N., Xu, H., Zhao, X., Wen, X., Wang, F., et al., Network-based identification of novel connections among apoptosis signaling pathways in cancer, *Applied Biochemistry and Biotechnology* (ISSN: 0273-2289, IF 1.879; SCOPUS), 167(3), 621-631, 2012.

290. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

291. Han, Z., Wang, Q., Wu, H., Hu, Zh., Stochastic P-bifurcation in a dalayed Myc/E2F/MiR-17-92 network, *Int. J. of Bifurcations and Chaos* (ISSN: 0218-1274; IF 2.836 Q1; SCOPUS), 32(11), 2250159, 2022.

Nikolov, S., Nedev, V., Zlatanov, V., A numerical investigation of the modified Sherman systems, *Eng. Mechanics* (ISSN: 1802-1484), 18(2), 127-142, 2011.

Цитирана от:

292. Stoyanov, B., Stoyanov, B., BOOST: Medical image steganography using nuclear spin generator, *Entropy* (ISSN: 1099-4300; IF 2.419 Q1; SCOPUS), 22(5), art. No 501, 2020.

293. Ahmad, I., A Lyapunov-based direct adaptive controller for the suppression and synchronization of a perturbed nuclear spin generator chaotic system, *Applied Mathematics and Computation* (ISSN: 0096-3003; IF 3.472 Q1; SCOPUS), 395, 125858, 2021.

294. Paraskevov, H., Stoyanov, B., Steganographic algorithm based on chaotic random system on Raspberry Pi hardware, *AIP Conference Proceedings* (ISBN: 978-0-7354-4077-7; SJR 0.19; SCOPUS), 2333(1), 070002, 2021.

Vera, J., **Nikolov, S.**, Lai, X., Singh, A., Wolkenhauer, O., A model-based investigation of the transcriptional activity of p53 and its feedback loop regulation via 14-3-3σ, *IET Systems Biology* (ISSN: 1751-8849), 5(5), 293-307, 2011.

Цитирана от:

295. Wei, J., Yang, Y., Lu, M., Xu, L., Liu, F., Yuan, Zh., Bao, Q., et al., Escape, or vanish: control the fate of p53 through MDM2-mediated ubiquitination, *Anti-Cancer Agents in Medicinal Chemistry* (Formerly Current Medicinal Chemistry - Anti-Cancer Agents) (ISSN: 1871-5206; IF 2.939; SCOPUS), 16(2), 174-189, 2016.

296. Haseeb, M., Azam, S., Bhatti, A.L., Ullah, M., Fazal, S., On p53 revival using system oriented drug dosage design, *J. Theoretical Biology* (ISSN: 0022-5193; IF 2.21; SCOPUS), 415, 53-57, 2017.
297. Azam, M., Fazal, S., Ullah, M., Bhatti, A., System based strategies for p53 recovery, *IET Systems Biology* (ISSN: 1751-8857; IF 1.048; SCOPUS), 12(3), 101-107, 2018.
298. Sabnis, A., "Development of a Novel Method for Biochemical Systems Simulation: Incorporation of Stochasticity in a Deterministic Framework" (2012). *Biology Dissertations.* Paper 120. http://digitalarchive.gsu.edu/biology_diss/120 (Google Scolar).
299. Tang, B., Hsu, P.-Y., Huang, T.H., Jin, V.-X., Cancer omics: From regulatory networks to clinical outcomes, *Cancer Letters* (ISSN: 0304-3835; IF 4.258 Q1; SCOPUS), 340(2), 277-283, 2013.

Nikolov, S., Vera, J., Wolkenhauer, O., Bifurcation analysis of a model accounting for the 14-3-3σ signalling compartmentalisation, In: *Quality Assurance in Healthcare Service Delivery, Nursing, and Personalized Medicine: Technologies and Processes.* Eds:Ath. Lazakidou and Andr. Daskalaki, (ISBN: 978-1-61350-120-4), IGI Global, Capter 4, pp. 61-70, 2012.

Цитирана от:

300. Aggarwal, A., Kaur, R., Patent law and intellectual property in the medical field, *IGI Global* (ISBN 13:9781522524144; Google Scholar), pp.1- 257, 2017.
301. Chakraborty, H., Ganguli, S., Gangopadhyay, A., Datta, A., *Protein structure prediction*, In: Applying big data analysis in bioinformatics and medicine (ISBN: 13-978152-252-6070; Google Scholar), Chapter 3, 48-79, 2018.
302. Sekalala, S., Niezgoda, B., Global perspectives on health communication in the age of social media, *IGI Global* (ISBN: 13:9781522537168; Google Scholar), 1-348, 2018.
303. Pattnaik, P., Swetapadma, A., Sarraf, J., Expert system techniques in biomedical science practice, *IGI Global* (ISBN: 978-1522-55150-8; Google Scholar), 1-280, 2018.
304. Rodrigues, J., Advancing medical practice through technology: Applications for healthcare delivery, management, and quality (ISBN: 978-1466-64620-9; Google Scholar), *IGI Global*, 2013.

Nikolov, S., Vera, J., Nenov, M., Wolkenhauer, O., Dynamics of a miRNA model with two delays, *Biotechnology & Biotechnological Equipment* (ISSN: 1310-2818), 26(5), 3315-3320, 2012.

Цитирана от:

305. Wang, L., Romano, M.C., Davidson, F.A., Translational control of gene expression via interacting feedback loops, *Physical Review E* (ISSN: 1539-3755; IF 2.353; SCOPUS), 100(5), 050402(R), 2019.
306. Trofimenkoff, E., Roussel, M., Small binding-site clearance delays are not negligible in gene expression, *Mathematical Biosciences* (ISSN: 0025-5564; IF 1.68; SCOPUS), 325, art. No 108376, 2020.
307. Gao, Ch., Chen, F., Dynamics of p53 regulatory network in DNA damage response, *Applied Mathematical Modelling* (ISSN: 0307-904X; IF 3.633; SCOPUS), 88, 701-714, 2020.
308. Yaghoobi, H., Maghooli, K., Asadi-Khiavi, M., Dabanloo, N. J., GENAVOS: A new tool for modelling and analyzing cancer gene regulatory networks using delayed nonlinear variable order fractional system. *Symmetry* (ISSN: 2073-8994; IF 2.645; SCOPUS), 13(2), art. No 295, 1-19, 2021.
309. Beshkov, V., Markov, S., International Conference on Mathematical Methods and Models in Biosciences, *Biotechnology & Biotechnological Equipment* (ISSN: 1310-2818, IF 0.76; SCOPUS), 26(5), 3242-3243, 2012.
310. Gao, Ch., Chen, F., Stability and bifurcation analysis of a delayed genetic oscillator model, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 5.022 Q1 SJR 1.252; SCOPUS), 106, 3565-3582, 2021.
311. Yan, H., Qiao, Y., Duan, L., Miao, J., Synchronization of fractional-order gene regulatory networks mediated by miRNA with time delays and unknown parameters, *Journal of the Franklin Institute* (ISSN: 0016-0032; IF 4.504 Q1; SCOPUS), 359(5), 2176-2191, 2022.

312. Han, Z., Wang, Q., Wu, H., Hu, Zh., Stochastic P-bifurcation in a dalayed Myc/E2F/MiR-17-92 network, *Int. J. of Bifurcations and Chaos* (ISSN: 0218-1274; IF 2.836 Q1; SCOPUS), 32(11), 2250159, 2022.

313. Gao, Y., Li, N., Bifurcation control of a novel fractional-order gene regulatory network with incommensurate order and time delay, *Results in Physics* (ISSN: 2211-3797; IF 5.3 Q2; SCOPUS), 53, 106996, 2023.

Nikolov, S., Stability and Andronov-Hopf bifurcation of a system with three time delays, *Journal of Mathematics* (ISSN: 2314-4785), 2013, art. ID 347071(11 pages), 2013.

Цитирана от:

314. Mondal, A., Stability and control analysis of some problems of chaotic dynamical systems, *PhD thesis* (Google Scholar), University of Calcutta, Department of Applied Mathematics, 2015.

Nikolov, S., Complex behaviour of a miRNA model with three delays, *Series on Biomechanics* (ISSN: 1313-2458), 28(3-4), 74-89, 2013.

Цитирана от:

315. Mondal, A., Stability and control analysis of some problems of chaotic dynamical systems, *PhD thesis* (Google Scholar), University of Calcutta, Department of Applied Mathematics, 2015.

Nikolov, S., Lai, X., Vera, J., MicroRNA regulation, Time delay, In: *Encyclopedia of Systems Biology, Springer*, Dubitzky, W., Wolkenhauer, O, Yokata, H., Cho, K-H (eds.), (ISBN-13:978-1-4419-9862-0), pp. 1331-1334, 2013.

Цитирана от:

316. Kiani, M., Salehi, M., Mogheiseh, A., Mohammadi-Yeganeh, S., Shahidi, S., The effect of increased miR-16-1 levels in mouse embryos on epigenetic modification, target gene expression, and developmental processes, *Reproductive Sciences* (eISSN: 1933-7205; IF 2.559), 27(12), 2197-2210, 2020.

Nikolov, S., Nedev, V., Stability and bifurcation behaviour of an inverted pendulum with follower force, *Mechanics, Transport, Communications* (ISSN: 1312-3823), 11(2), art No 0775 (10 pages), 2013.

Цитирана от:

317. Cai, W., Abbas, L., Chen, D., Rui, X., Marzocca, P., Catastrophic/benign flutter boundary evaluation carried for two-dimensional aerodynamic surface in subsonic flow, *Advances in Engineering Research* (ISSN: 2352-5401; Google Scholar), 90, 29-37, 2016.

Nikolov, S., Wolkenhauer, O., Vera, J., Tumors as chaotic attractors, *Molecular BioSystems* (ISSN: 1742-206X), 10(2), 172-179, 2014.

Цитирана от:

318. Paroni, A., Graudenzi, A., Caravagna, G., Damiani, Ch., Mauri, G., Autoniotti, M., CABeRNET: a Cytoscape app for augmented Boolean models of gene regulatory NETworks, *BMC Bioinformatics* (ISSN: 1471-2105; IF 2.576; SCOPUS), 17, 64 (12 pages), 2016.

319. Abernethy, S., Gooding, R., The importance of chaotic attractors in modelling tumour growth, *Physica A: Statistical Mechanics and its Applications* (ISSN: 0378-4371; IF 2.243; SCOPUS), 507, 268-277, 2018.

320. Jerez, S., Pliego, E., Solis, F.J., Strange attractors in discrete slow power-law models of bone remodeling, *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832 Q1; SCOPUS), 31(3), 033109, 2021.

321. Orel, V., Syvak, L., Orel. V., Remote control of magnetic nanocomplexes for delivery and destruction of cancer cells, *Journal of Biomaterials Applications* (ISSN: 0885-3282; IF 2.22 Q2; SCOPUS), 36(5), 872-881, 2021.

322. Karaca, C., Relational basis of the organism’s self-organization. A philosophical discussion, *PhD thesis* (Google Scholar), University of Exeter, UK, 2019.

323. Alouini, B., A new approach on the finite fractal dimension of some chaotic dynamics, *Der Pharmacia Lettre* (ISSN: 0975-5071; Google Scholar), 13(7), 132-139, 2021.
324. Kemwoue, F., Deli, V., Edima, H., Mendimi, J., Gninzanlong, C., Dedzo, M., Tagne, J., Atangaua, J., Effects of delay in a biological environment subject to tumor dynamics, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 9.922 Q1; SCOPUS), 158(2), 112022, 2022.
325. Liu, T.-M., *Ultrafast Imaging and Spectroscopy for Biomedicine* (ISBN: 978-0-7354-2467-8; Google Scholar), AIP Publishing Books, Melville, New York, 2022.
326. Singh, P., Roy, B., Chaos and multistability behaviors in 4D dissipative cancer growth/decay model with unstable line of equilibria, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 9.922 Q1; SCOPUS), 161(6), 112312, 2022.
327. Luce, S., Sayama, H., Analysis and visualization of high-dimensional dynamical systems phase space using a network-based approach, *Complexity* (ISSN: 1076-2787; IF 2.121 Q1; SCOPUS), 2022, Art. ID 3937475, 11pages, 2022.
328. Kumar, P., Jha, S., Aggarwal, R., Jha, G., (R1980) Effect of climate change on brain tumor, *Applications and Applied Mathematics: an International Journal (AAM)* (ISSN: 1932-9466; Google Scholar), 17(2), art. 17, 2022.
329. Shityakov, S., Kravtsov, V., Skorb, E., Nosonobsky, M., Ergodicity breaking and self-destruction of cancer cells by induced genome chaos, *Entropy* (ISSN: 1090-4300; SJR 0.541 Q2; SCOPUS), 26(1), 37, 2024.

Khan, F.M., Schmitz, U., **Nikolov, S.,** Engelmann, D., Putzer, B., Wolkenhauer, O., Vera, J., Hybrid modeling of the crosstalk between signaling and transcriptional networks using ordinary differential equations and multi-valued logic, *BBA (Biochimica et Biophysica Acta)- Proteins and Proteomics* (ISSN: 1570-9639), 1844(1), 289-298, 2014.

Цитирана от:

330. Kerkhofs, J., Leijten, J., Bolanders, J., Luyten, Fr., Post, J., Geris, L., A qualitative model of the differentiation network in chondrocyte maturation: a holistic view of chondrocyte hypertrophy, *PlosOne* (ISSN: 1932-6203; IF 3.534; SCOPUS), 11(8), e0162052, 2016.
331. Hausburg, F., Jung, J., Hoch, M., Wolfien, M., Yavari, A., Rimmbach, C., David, R., (Re-) programming of subtype specific cardiomyosytes, *Advanced Drug Delivery Reviews* (ISSN: 0169-409X; IF 11.764 Q1; SCOPUS), 120, 142-167, 2017.
332. He, Z., Sun, J., Stability analysis of time-delay discrete systems with logic impulses, *Communications in Nonlinear Science and Numerical Simulation* (ISSN: 1007-5704; IF 3.181 Q1; SCOPUS), 78, Art. Number 104842, 2019.
333. He, Z., Sun, J., Ultimate boundedness of discrete stochastic time-delay systems with logic impulses, *Neural Computing and Applications* (ISSN: 1433-3058; IF 4.213 Q1; SCOPUS), 32(10), 5805-5813, 2020.
334. Khatibi, Sh., Signalling and crosstalk in cytokine pathways: mathematical modeling and qualitative analysis, *PhD thesis* (Google Scholar), University of Melbourne, Australia, 2016.
335. Poret, A., Sousa, C., Boissel, J.-P., Enhancing Boolean networks with continuous logical operators and edge tuning, *bioRxiv*, doi:http://dx.doi.org/10.1101/584243, 30 pages, 2019.
336. Georgiou, G., From chromatin to gene regulatory networks in embryonic development and evolution (ISBN: 978-94-028—1646-4; Google Scholar), *PhD thesis*, Radboud University Nijmegen, Netherlands, 2019.
337. Chowdhury, S., Understanding complexities in biochemical pathways related to human diseases – a computational and mathematical approach, *PhD thesis* (Google Scholar), CSIR-National Chemical Laboratory, Pune, India, 2018.
338. Li, R., He, Zh., Stability analysis of time-delay differential systems with impulsive effect suffered by logic choice, *Results in Control and Optimization* (ISSN: 2666-7207; SCOPUS), 4, 100026, 2021.
339. Cruz, D., Kemp, M., Hybrid computational modeling methods for systems biology, *Progress in Biomedical Engineering* (ISSN: 2516-1091; SCOPUS), 4(1), 012002, 2022.

Nenov, M., **Nikolov, S.,** Employing power graph analysis to facilitate modeling molecular interaction networks, *Int. J. Bioautomation*, (ISSN: 1314-2321; SJR 0.238), 19(1), 37-42, 2015.

Цитирана от:

340. Petrova, N., Koleva, P., Velikova, V., Tsonev, T., Andreeva, T., Taneva, S., Krumova, S., Danova, K., Relations between photosynthetic performance and polyphenolics productivity of *Artemisia alba* turra in *in vitro* tissue cultures, *Int. J. BIOautomation* (ISSN; 1314-2321; SJR 0.25; SCOPUS), 22(1), 73-82, 2018.

Islam, M., Islam, N., **Nikolov, S.,** Adaptive control and synchronization of Sprott J system with estimation of fully unknown parameters, *J. of Theoretical and Applied Mechanics* (ISSN: 0861-6663), 45(2), 43-56, 2015.

Цитирана от:

341. Nguazon, T., Nguekeng, T., Tchitinga, R., Fomethe, A., Simple finite-time sliding mode control approach for jerk systems, *Advances in Mechanical Engineering* (ISSN: 1687-8140; IF 1.024; SCOPUS), 11(1), 1-11, 2019.

342. Wang, L., Jianbao, Zh., Sun, W., Adaptive outer synchronization and topology identification between two complex dynamical networks with time-varying delay and disturbance, *IMA Journal of Mathematical Control and Information* (ISSN: 0265-0754; IF 1.0; SCOPUS), 36(3), 949-961, 2019.

343. Gong, J., Chen, G., Hu, H., Yu, W., Parameters identification and synchronization of complex dynamical networks with time-varying delays via linear control, *2019 Tenth Int. Conference on Intelligent Control and Information Processing (ICICIP)*, Marrakesh, Morocco (ISBN: 978-1-7281-0015-9; Google Scholar), 250-257, 2019.

344. Cui, Zh., Zhong, D., Qui, X., Synchronization analysis of new four-dimensional time-delay Lorenz system and its circuit experiments, *Applied Sciences* (ISSN: 2076-3417; IF 2.838 Q2; SCOPUS), 12(20), 10557, 2022.

345. Laouira, W., Hamri, N., New design of stability study for linear and nonlinear feedback control of chaotic systems, *Nonlinear Dynamics and Systems Theory* (ISSN: 1813-7385; SJR 0.33 Q3; SCOPUS), 22(4), 414-423, 2022.

Nikolov, S., Nedkova, N., Gyrostat model regular and chaotic behaviour, *J. of Theoretical and Applied Mechanics* (ISSN: 0861-6663), 45(4), 15-30, 2015.

Цитирана от:

346. He, J., Cai, J., Dynamics analysis of a gyrostat system with intermittent, *Proc. of the Institution of Mechanical Engineering Part I, Journal of Systems and Control Engineering* (ISSN: 0959-6518; IF 1.714 SJR 0.35 Q2; SCOPUS), 236(4), 696-706, 2022.

347. Kosov, A., Semenov, E., On first integrals and stability of stationary motions of gyrostat, *Physica D: Nonlinear Phenomena* (ISSN: 0167-2789; IF 2.3 Q1; SCOPUS), 430, 133103, 2022.

348. Huang, Sh., Wu, R., Wang, Y., Sun, Y., Zhang, J., Li, X., Inferring user input through smartphone gyroscope, 2nd Int. Conference on Consumer Electronics and Computer Engineering (ICCECE) (ISBN:978-1-6654-0887-5; Google Scholar), 623-628, 2022.

349. Taheri, A., Setoudeh, F., Tavakoli, M., Feizi, E., Nonlinear analysis of memcapacitor-based hyperchaotic oscillator by using adaptive multi-step differential transform method, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 9.922 Q1; SCOPUS), 159(2), 112122, 2022.

350. Samuilik, I., Lyapunov exponents and Kaplan-Yorke dimension for five dimensional system, *WSEAS Transactions on Systems* (E-ISSN: 2224-2678 SJR 0.12 Q4; SCOPUS), 21, 268-275, 2022.

351. Kozlovska, O., Samuilik, I., Quasi-periodic solutions for a three-dimensional system in gene regulatory network, *WSEAS Transactions on Systems* (E-ISSN: 2224-2678; SJR 0.12 Q4; Google Scholar), 22, 727-733, 2023.

352. Kozlovska, O., Sadyrbaev, F., Samuilik, I., A new 3D chaotic attractor in gene regulatory network, *Mathematics* (EISSN: 2227-7390; IF 2.4 Q1; SCOPUS), 12(1), 100, 2024.

Nikolov, S., Nedkova, N., Dynamical behavior of a rigid body with one fixed Point (gyroscope). Basic concepts and results. Open problems: a review, *J. of Applied and Computational Mechanics* (ISSN: 2383-4536), 1(4), 187-206, 2015.

Цитирана от:

353. Kosov, A., Semenov, E., On first integrals and stability of stationary motions of gyrostat, *Physica D: Nonlinear Phenomena* (ISSN: 0167-2789; IF 2.3 Q1; SCOPUS), 430, 133103, 2022.

354. Kosov, A., Semonov, E., On the movement of gyrostat under the action of potential and gyroscopic forces, *Zhurnal Srednovolzhskogo Matematicheskogo Obshchestva* (ISSN: 2079-6900; Google Scholar), 24(1), 66-75, 2022.

355. Kammel, Ch., Ullmann, I., Vossiek, M., Motion parameter estimation of free-floating space debris objects based on MIMO radar, *IEEE Transactions on Radar Systems* (EISSN: 2832-7357; Google Scholar), 1, 681-697, 2023.

356. Fan, Ch., Wu, Y., Gu, L., Wang, Z., Liu, W., Cui, F., Automtic feedthrough cancellation methods for MEMS gyroscopes, *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science* (ISSN: 0954-4062; IF 2.0 Q2; SCOPUS), in press, 2023.

357. Bu, F., Feng, R., Guo, Sh., Zhou, M., Wang, Y., Wang, F., Temperature drift suppression for micro-electro-mechanical system gyroscope based on vibrationaldisplacement control with harmonic amplitude ratio, *Micro&Nano Letters* (ISSN: 1750-0443; IF 1.3 Q3; SCOPUS), 19(1), e12187, 2024.

Nikolov, S., Nedev, V., Bifurcation analysis and dynamic behaviour of an inverted pendulum with bounded control, *J. of Theoretical and Applied Mechanics* (ISSN: 0861-6663), 46(1), 17-32, 2016.

Цитирана от:

358. Gritli, H., Khraief, N., Chemori, A., Belghith, S., Self-generated limit cycle tracking of the underactuated inertia wheel inverted pendulum under IDA-PBC, *Nonlinear Dynamics* (ISSN: 1573-269X; IF 3.00; SCOPUS), 89(3), 2195-2226, 2017.

359. Haddad, K., Belghith, S., Gritli, H., Chemori, A., From Hopf bifurcation to limit cycles control in underactuated mechanical systems, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 1.329; SCOPUS), 27(7), 1750104 (15 pages), 2017.

360. Chiu, Ch., Peng, Ya., Position and angle control for a two-wheel robot, *Int. J. of Control, Automation and Systems* (ISSN: 1598-6446; IF 1.687; SCOPUS), 15, 2343-2354, 2017.

361. Madni, Z., Guesmi, K., Benalia, A., Backstepping control of abnormal behaviours in DC-Dc boost converter, Int. Conf. on Electrical Eng. and Control Appl. (ICEECA 2017): Advanced Control Eng. Methods in Electrical Eng. Systems, In: *Lecture Notes in Electrical Engineering* (ISSN: 1876-1100, ISBN: 978-3-319-97816-1; SJR 0.135; SCOPUS) Springer, 522, pp. 3-13, 2019.

362. Gohatre, U.B., Singla, C.R., Patil, V.P., The performance of ball during flight incorporate lift force, drag, gravity and high turning velocity trajectories tracking prediction, *International Journal of Recent Technology and Engineering* (ISSN: 2277-3878; IF SCOPUS), 8(2 Special Issue 11), 3252-3256, 2019.

363. Kuncan, M., Kaplan, K., Position determination by using image processing method in inverted pendulum, *Proceedings of Int. Eng., Science and Education Conference* (Google Scholar), December, Diyarbakir, Turkey, pp. 873-878, 2016.

364. Sen, M., Bilgic, H., Kalyoncu, M., Determination of LQR controller parameters for stabilization and position control of double inverted pendulum using the bees algorithm, *Engineer & the Machinery Magazine* (ISSN: 1300-3402; Google Scholar), 57(679), 53-62, 2016.

365. Kuncan, M., Kaplan, K., Position determination by using image processing method in inverted pendulum, *Middle East J. of Technic* (ISSN: 2536-5304; Google Scholar), 56-63, 2016.

366. Ivanov, A., Javorova, J., Three dimensional golf ball flight, *Tehnomus* (ISSN: 1224-029X; Google Scholar), 24(1), 54-61, 2017.

367. Kovalchuk, V., Bifurcation analysis of the stability of one dynamical system with a follower force, *Transport Systems and Technologies* (ISSN: 2617-9040; Google Scholar), 2(33), 38-49, 2019.

368. Kharola, A., Pokhriyal, V., PID based control of cart and pendulum system in simscape environment, *AIP Conf. Proc* (ISSN: 1551-7616; Google Scholar), 2978(1), 060007, 2024.

Santos, G., **Nikolov, S.**, Lai, X., Eberhardt, M., Dreyer, F., Paul, S., Schuler, G., Vera, J., Model-based genotype-phenotype mapping used to investigate gene signatures of immune sensitivity and resistance in melanoma micrometastasis, *Scientific Reports* (ISSN: 2045-2322), 6, art. No 24967, 2016.

Цитирана от:

369. Antoni, D., Bockel, S., Deutsch, E., Mornex, F., Radiotherapie et therapies ciblees/immunotherapie, *Cancer Radiotherapie* (ISSN: 1278-3218; IF 1.299; SCOPUS), 20(6-7), 434-441, 2016.

370. Filipp, F., Precision medicine driven by cancer systems biology, *Cancer Metastasis Review* (ISSN: 0167-7659; IF 5.316; SCOPUS), 36(1), 91-108, 2017.

371. Colbey, C., Cox, A., Pyne, D., Zhang, P., Cripps, A., West, N., Upper respiratory symptoms, gut health and mucosal immunity in athletes, *Sports Medicine* (ISSN: 0112-1642; IF 6.832; SCOPUS), 48, 65-77, 2018.

372. Abernethy, S., Gooding, R., The importance of chaotic attractors in modelling tumour growth, *Physica A: Statistical Mechanics and its Applications* (ISSN: 0378-4371; IF 2.243; SCOPUS), 507, 268-277, 2018.

373. Buetti-Dinh, A., Herold, M., Christel, S. *et al.* Reverse engineering directed gene regulatory networks from transcriptomics and proteomics data of biomining bacterial communities with approximate Bayesian computation and steady-state signalling simulations. *BMC Bioinformatics* (ISSN: 1471-2105; IF 2.511; SCOPUS) 21(1), art No 23, 2020.

374. Albrecht, M., Lucarelli, P., Kulms, D., Sauter, T., Computational models of melanoma, *Theoretical Biology and Medical Modelling* (ISSN: 1742-4682; IF 1.568; SCOPUS), 17(1), 8, 2020.

375. Mohammadi, H., Kheshti, M. (2021). Long-life control of tumor growth via synchronizing to a less severe case. *Biomedical Signal Processing and Control* (ISSN: 1746-8094; IF 3.137; SCOPUS), 68, 102727, 2021.

376. Konig, M., Oellrich, A., Waltemath, D., Dobson, R., Hubbard, T., Wolkenhauer, O., Challenges and opportunities for system biology standards and tools in medical research, *CEUR Workshop Proceedings* (ISSN: 16130073; Google Scholar), e124174, 2016.

377. Shen, Y., Kudla, G., Oyarzún, D., DNA representations and generalization performance of sequence-toexpression models, BioRxiv; doi: https://doi.org/10.1101/2024.02.06.579067., 2024.

Nikolov, S., Zaharieva, D., Dynamics of swing oscillatory motion in Hamiltonian formalism, *Mechanics, Transport, Communications* (ISSN: 1312-3823), 15(3), VII7-VII12, art. ID 1495, 2017.

Цитирана от:

378. Klimina, L., Formalskii, A., Three-link mechanism as a model of a person on a swing, *J. of Computer and Systems Sciences International* (ISSN: 1555-6530; IF 0.538; SCOPUS), 59(5), 728-744, 2020.

379. Климина, Л.А., Формальский, А.М., Трехзвенный механизм как модель человека на качелях, *Известия Российской Академии Наук. Теория и Системы Управления* (ISSN: 1029-3620; Google Scholar), № 5, стр. 89-105, 2020.

Nikolov, S., Santos, G., Wolkenhauer, O., Vera, J., Model-based phenotypic signatures governing the dynamics of the stem and semi-differentiated cell populations in dysplastic colonic crypts, *Bulletin of Mathematical Biology* (ISSN: 0092-8240), 80(2), 360-384, 2018.

Цитирана от:

380. Stiehl, T., Marciniak-Czochra, A., How to characterize stem cells? Contribution from mathematical modeling, *Current Stem Cell Reports* (ISSN: 2198-7866; IF 1.82; SCOPUS), 5(2), 57-65, 2019.

Nikolov, S., Nenov, M., Modelling vaccine quantity in mathematical models of melanoma treatment, *Series on Biomechanics* (ISSN: 1313-2458), 32(4), 19-25, 2018.

Цитирана от:

381. Koprinkova-Hristova P., Research on artificial neural networks in Bulgarian Academy of Sciences. In: Atanassov K.T. (eds) *Research in Computer Science in the Bulgarian Academy of Sciences. Studies in Computational Intelligence* (ISBN 978-3-030-72284-5; SJR 0.19 Q4; SCOPUS), vol. 934, 287-304, Springer, Cham., 2021.

382. Kalhor, E., Noori, A. Afshari, J.T., Rad, S.S., Modeling for the body defense mechanisms in stage I melanoma patient and sensitivity analysis by using Partial Rank Correlation Coefficient (PRCC) method, *Journal of Control* (ISNN: 2008-8345; Google Scholar), 15(2), 159-175, 2021.

Nikolov, S., Dimitrov, A., Vera, J., Hierarchical levels of biological systems and their integration as a principal cause for tumour occurrence, *Nonlinear Dynamics, Psychology, and Life Sciences* (ISSN: 1090-0578), 23(3), 315-329, 2019.

Цитирана от:

383. Момчил Ненов, *PhD-thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

384. Ruiz-Arrebola, S., Guirado, D., Villalobos, M., Lallena, A., Evaluation of classical mathematical models of tumor growth using an on-lattice agent-based Monte Carlo model, *Applied Sciences* (ISSN: 2076-3417; IF 2.474 Q1; SCOPUS), 11(11), art. No 5241, 2021.

Zlatanov, V., **Nikolov, S.,** Vibrations of a chain in the braking regime of the motion mechanism in load-lifting machines, *Lecture Notes in Mechanical Engineering* (ISSN: 2195-4356), In: *Advances in Mechanical Engineering* (ISBN-13: 978-3030119805). Selected Contributions from the Conference "Modern Engineering: Science and Education", Springer, pp. 221-232, 2019.

Цитирана от:

385. Bahrami, M.R., Mechanical challenges of inspection robot moving along the electrical line: effect of flexural rigidity, *Lecture Notes in Mechanical Engineering* (ISSN: 2195-4356; SJR 0.165; SCOPUS), In: *International Conference Modern Engineering: Science and Education*. Springer, 30-37, 2021.

386. Vorob'eva, N., Zhoga, V., Zhoga, L., Dynamic synthesis of paralel-sequental structure manipulator control algorithms, *Mechatronics, Automation, Control* (ISSN: 1684-6427; SJR 0.24 Q3; SCOPUS), 21(12), 706-715, 2020. (in Russian)

Nikolov, S., Wolkenhauer, O., Vera, J., Nenov, M., The role of cooperativity in a p53-miR34 dynamical mathematical model, *Journal of Theoretical Biology* (ISSN: 0022-5193), 495, art. No 110252, 2020.

Цитирана от:

387. Jan, A., Shah, R., Ahmad, H., Bilal, H., Almohsen, B., Dynamic behavior of enzyme kinetics cooperative chemical reactions, *AIP Advances* (ISSN: 2158-3226; IF 1.6 Q2; SCOPUS), 14(3), 035139, 2024.

Uzunov, I.M., **Nikolov, S.G.,** Influence of the higher-order effects on the solutions of complex cubic-quintic Ginzburg – Landau equation, *Journal of Modern Optics* (ISSN: 0950-0340), 67(7), 606-618, 2020.

Цитирана от:

388. Seadawy, A., Zahed, H., Rizvi, S., Diverse forms of breathers and rogue wave solutions for the complex cubic quintic Ginzburg-Landau equation with intrapulse Raman scattering, *Mathematics* (ISSN: 2227-7390; IF 2.592 Q1 SJR 0.495; SCOPUS), 10(11), 1818, 2022.

389. Lin, D., Dong, K., Zhang, J., Shen, Y., Effect of near PT-symmetric potentials on nonlinear modes for higher-order generalized Ginzburg-Landau model, *Communications in Theoretical Physics* (ISSN: 0253-6102; IF 3.1 Q2 SJR 0.44; SCOPUS), 74(12), 125001, 2022.

390. Vassilev, V., Exact solutions to a family of complex Ginzburg-Landau equations with cubic-quintic nonlinearity, *arXiv preprint arXiv:2304.07271*, 2023 - arxiv.org, 2023.
391. Vassilev, V., Exact solutions to a family of nonlinear Schrödinger equations, *Journal of Physics: Conference Series* (ISSN: 1742-6596 SJR 0.18; SCOPUS), 2667(1), 012070, 2023.

Nikolov, S., Vassilev, V., Completely integrable dynamical systems of Hopf-Langford type, *Communications in Nonlinear Science and Numerical Simulation* (ISSN: 1007-5704), 92, art. No 105464, 2021.

Цитирана от:

392. Musafirov, E., Grin, A., Pranevich, A., Admissible perturbations of a generalized Langford system, *Int. J. of Bifurcations and Chaos* (ISSN: 0218-1274; IF 2.836 Q1; SCOPUS), 32(3), 2250038, 2022.
393. Munteanu, F., Grin, A., Musafirov, E., Pranevich, A., Şterbeţi, C., About the Jacobi stability of a generalized Hopf–Langford system through the Kosambi–Cartan–Chern geometric theory, *Symmetry* (ISSN: 2073-8994; IF 2.94 Q1; SCOPUS), 15(3), 598, 2023.
394. Guo, G., Wang, J., Wei, M., Stability and Hopf bifurcation in the general Langford system, *Qualitative Theory of Dynamical Systems* (ISSN: 1662-3592; IF 1.4 Q1; SCOPUS), 22(4), 144, 2023.
395. Yumagulov, M., Fazlytdinov, M., Gabdrahmanov, R., Langford model: Dynamics, bifurcations, attractors, *Lobachevskii Journal of Mathematics* (ISSN: 1995-0802; IF 0.7 Q2; SCOPUS), 44(5), 1953-1965, 2023.
396. Zhong, J., Liang, Y., Invariant tori and heteroclinic invariant ellipsoids of a generalized Hopf-Langford system, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 2.2 Q1; SCOPUS), 33(13), 2350153, 2023.
397. Ryehan, Sh., Numerically unveiling hidden chaotic dynamics in nonlinear differential equations with Riemann-Liouville, Caputo-Fabrizio, and Atangana-Baleanu fractional derivatives, *arXiv preprint arXiv:2307.03251*, 2023.
398. Chatibi, Y., Analytical solutions of virus propagation model in blockchain networks, *arXiv preprint arXiv:2304.12980*, 2023.
399. Fu, Y., Li, J., Bifurcations of invariant torus and knotted periodic orbits for the generalized Hopf-Langford system, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 5.022 Q1 SJR 1.252; SCOPUS), 106(3), 2097-2105, 2021.
400. Chatibi, Y., Analytical solutions of virus propagation model in blockchain netwotks, *Quaestiones Mathematicae* (ISSN: 1607-3606; SJR 0.38 Q3), in ress, 2024.

Vera, J., Lischer, Ch., Nenov, M., **Nikolov, S.,** Lai, X., Eberhardt, M., Mathematical modelling in biomedicine: A primer for the curious and the skeptic, *Int. J. of Molecular Sciences* (EISSN: 1422-0067), 22(2), art. No 547, 1-16, 2021.

Цитирана от:

401. Budde, K., Smith, J., Wilsdorf, P., Haack, F., Uhrmacher, A. M. (2021). Relating simulation studies by provenance—Developing a family of Wnt signaling models, *bioRxiv*, 2021.
402. Ruiz-Arrebola, S., Guirado, D., Villalobos, M., Lallena, A., Evaluation of classical mathematical models of tumor growth using an on-lattice agent-based Monte Carlo model, *Applied Sciences* (ISSN: 2076-3417; IF 2.474 Q1; SCOPUS), 11(11), art. No 5241, 2021.
403. Panteleev, M., Systems approaches meet biology and physiology: why do we need yet another journal?, *System Biology and Physiology Reports* (ISSN: 2733-2993; Google Scholar), 1(1), 1-2, 2021.
404. Gamboa, D., Coria, L., Valle, P., Ultimate bounds for a diabetes mathematical model considering glucose homeostasis, *Axioms* (ISSN: 2075-1680; IF 1.824 Q2; SCOPUS), 11(7), 320, 2022.
405. Kulenova, N., Dogadkin, D., Azamatov, B., Sadenova, M., Beisekenov, N., Shaimardanov, Zh., Mursalov, N., Modeling and manufacturing of individual implants for traumatology and orthopedics, *Chemrcal Engineering Transactions* (ISSN: 2283-9216; SJR 0.25 Q3; SCOPUS), 94, 793-798, 2022.

406. Angelov, R., Manjunath, G., Phiri, A., Nyakudya, T., Bipath, P., Serem, J., Hlophe, Y., Quantifying assays: a modelling tale of variability in cancer therapeutics assesed on cancer cells, arXiv:2207.08449 [q-bio.QM], 2022.
407. Hussain, Sh., Yates, C., Campbell, M., Vitamin D and Systems biology, *Nutrients* (ISSN: 2072-6643; IF 6.706 Q1; SCOPUS), 14(24), 5197, 2022.
408. Kopacz, A., The novel mechanisms of the regulation of the endothelial cell functions and aortic pathology–focus on NRF2/KEAP1 axis and microRNA-34a, *PhD thesis* (Google Scholar), Jagiellonian University in Kraków, Poland, 2022.
409. Yang, L., Pharmacometric methods in pharmacology: mathematical modelling of orthosteric and allosteric modulations of the CB1 receptor, *PhD thesis* (Google Scholar), the University of Otago, Dunedin, New Zealand, 2022.
410. Österberg, L., Towards a comprehensive modelling framework for studying glucose repression in yeast, *PhD thesis* (Google Scholar), Chalmers University of Technology, Gothenburg, Sweden, 2022.
411. Naskinova, I., Transfer learning with nasnet-mobile for pneumonia X-Ray classification, *Asia-European Journal of Mathematics* (ISSN: 1793-7183; SJR 0.294), 16(1), 2250240 2023.
412. Sharma, N., Computational and statistical aspects to classify the solvents effects on Dynamics of O_2 molecule, *Investigacion Operacional* (ISSN: 0257-4306; SJR 0.193 Q3), 45(1), 49-84, 2024.
413. Staroverov, V., Galatenko, A., Knyazev, E., Tonevitsky, a., Mathematical model explains differences on Omicron and Delta SARS-CoV-2 dynamics in Caco-2 and Calu-3 cells, *Peer J* (ISSN: 2167-8359; SJR 0.7 Q1), 12(7), e16964, 2024.

Nikolov, S., Vassilev, V., Dynamics of Rossler Prototype-4 System: Analytical and numerical investigation, *Mathematics* (ISSN: 2227-7390), 9(4), art. No 352, 2021.

Цитирана от:

414. Zhangyi, S., Linli, W., Yongxin, Z., Imani, H., Synchronization and anti-synchronization of a novel fractional order chaotic system with a quadratic term, *Int. J. of Modelling and Simulation* (ISSN: 0228-6203; IF 3.1 SJR 0.451 Q1), 43(4), 325-346, 2023.

Michailova, P., Lencioni, V., Nenov, M., **Nikolov, S.**, Can DNA barcoding be used to identify closely related Clunio Haliday, 1855 species (Diptera: Chirono midea)?, *Zootaxa* (ISSN: 1175-5326), 4927(1), 001-008, 2021.

Цитирана от:

415. Bolshakov, V., Prokin, A., Karyotype and COI sequences of Chironomus sokolovae Istomina, Kiknadze et Siirin, 1999 (Diptera,Chironomidae) from the bay of Orkhon River, Mongolia, *Comparative Cytogenetics* (ISSN: 1993-0771; SJR 0.49; SCOPUS), 15(2), 149-157, 2021.
416. Qi, X., Yao, Y., Liu, W.-B., Yan, Ch.-C., Wang, X.-H., Liu, X.-L., Review of the *Rheotanytarsus muscicola* species group from China (Diptera: Chironomidae), *Diversity* (ISSN: 1424-2818; IF 2.465 Q1; SCOPUS), 14(5), 383, 2022.
417. Mrozińska, N., Obolewski, K., Morphological taxonomy and DNA barcoding: Should they be intergrated to improve the identification of chironomid larvae (Diptera)?, *Ecohydrology and Hydrobiology* (ISSN: 1642-3593; SJR 0.708 IF 2.6 Q1; SCOPUS), in press 2023.
418. Han, W., Tang, H., Wei, L., Zhang, E., The first DNA barcode library of Chironomidae from the Tibetan Plateau with an evaluation of the status of the public databases, *Ecology and Evolution* (ISSN: 2045-7758; SJR 0.98 Q1; SCOPUS), 13(2), e9849, 2023.

Nikolov, S., Vassilev, V., Zaharieva, D., Analysis of swing oscillatory motion, *Studies in Computational Intelligence* (ISSN: 1860-949X), In: *Advanced Computing in Industrial Mathematics: 13th Annual Meeting of the Bulgarian Section of SIAM, December 18–20, 2018, Sofia, Bulgaria, Revised Selected Papers*. Springer Nature. pp. 313-323, 2021.

Цитирана от:

419. Hirata, Ch., Kitahara, Sh., Yamamoto, Y., Gohara, K., Richardson, M., Initial phase and frequency modulations of pumping a playground swing, *Physical Review E* (ISSN: 2470-0053; IF 2.707 Q1), 107(4), 044203, 2023.

Nikolov, S.G., Vassilev, V.M., Assessing the non-linear dynamics of a Hopf-Langford type system, *Mathematics* (ISSN 2227-7390), 9(18), art. No 2340, 2021.

Цитирана от:

420. Munteanu, F., Grin, A., Musafirov, E., Pranevich, A., Şterbeţi, C., About the Jacobi stability of a generalized Hopf–Langford system through the Kosambi–Cartan–Chern geometric theory, *Symmetry* (ISSN: 2073-8994; IF 2.94 Q1; SCOPUS), 15(3), 598, 2023.

421. Guo, G., Wang, J., Wei, M., Stability and Hopf bifurcation in the general Langford system, *Qualitative Theory of Dynamical Systems* (ISSN: 1662-3592; IF 1.4 Q1; SCOPUS), 22(4), 144, 2023.

Nikolov, S., Wolkenhauer, O., Nenov, M., Vera, J., Detection and analysis of critical dynamic properties of oligodendrocyte differentiation, *Mathematics* (ISSN: 2227-7390), 10(16), 2928, 2022.

Цитирана от:

422. Shkirin, A., Chirikov, S., Suyazov, N., Reut, V., Grigorieva, D., Gorudko, L., Bruskov, V., Gugkov, S., Modeling the kinetics of the singlet oxygen effect in aqueous solutions of proteins exposed to thermal and laser radiation, *Mathematics* (ISSN: 2227-7390; IF 2.592 Q1 SJR 0.495; SCOPUS), 10, 4295, 2022.

Uzunov, I., Arabadzhiev, T., **Nikolov, S.**, Self-steepening and intrapulse Raman scattering in the presence of nonlinear gain and its saturation, *Optik* (ISSN: 0030-4026), 271, 170137, 2022.

Цитирана от:

423. Kudryashov, S., Danilov, P., Chen, J., Intrapulse correlated dynamics of self-phase modulation and spontaneous Raman scattering in synthesis diamond excited and probed by positively chirped ultrashort laser pulses, *Photonics* (E-ISSN: 2304-6732; IF 2.536 Q2; SCOPUS), 10(6), 626, 2023.

424. Mukherjee, R., Borgohain, N., Impact of self-steepening and intra-pulse Raman scattering on modulation instability in multiple quantum wells, *The European Physical Journal Plus* (ISSN: 2190-5444; IF 3.4 Q2; SCOPUS), 138(9), 867, 2023.

Stoytchev, St., **Nikolov, S.,** Effects of flow-dependent and flow-independent viscoelastic mechanisms on the stress relaxation of articular cartilage, *Series on Biomechanics* (ISSN: 1313-2458), 37(1), 43-50, 2023.

Цитирана от:

425. Zvetkova, E., Koytchev, E., Ivanov, I., Ranchev, S., Antonov, A., Biomechanical, healing and therapeutic effects of stretching: a comprehensive review, *Applied Sciences* (ISSN: 2076-3417; IF 2.7 Q1; SCOPUS) 13(15), 8596, 2023.

Uzunov, I., Vassilev, V., Arabadzhiev, T., **Nikolov, S.,** Kink solutions of the complex cubic– quintic Ginzburg-Landau equation in the presence of intrapulse Raman scattering, *Optik* (ISSN: 0030-4026), 286, 171033, 2023.

Цитирана от:

426. Serkin, V.N., Belyaeva, T.L., Well-dressed repulsive-core solitons and nonlinear optics of nuclear reactions, *Optics Communications* (ISSN: 0030-4018; IF 2.4 Q2; SCOPUS), 549, 129831, 2023.

Цитирания през последните 5 години

Petrov, V., **Nikolov, S.,** Rheodynamic model of cardiac pressure pulsations, *Mathematical Biosciences* (ISSN: 0025-5564), 157(1-2), 237-252, 1999.

Цитирана от:

1. Liang, H., Huang, J., On the uniqueness and expression of limit cycles in planar polynomial differential system via monotone iterative technique, *Applicable Analysis* (ISSN: 0003-6811; SJR 0.653; Q2; SCOPUS), 101(9), 3365-3388, 2022.

Nikolov, S., Stoytchev, S., Torres, A., Nieto, J.J., Biomathematical modeling and analysis of blood flow in an intracranial aneurysm, *Neurological Research* (ISSN: 0161-6412), 25, 497-504, 2003.

Цитирана от:

2. Shabbir, M., Nazara, T., Numerical study of irreversibility analysis on pulsatile flow of blood through a ω- shaped stenotic artery, *Chinese Journal of Physics* (ISSN: 0577-9073; IF 5.0 Q2; SCOPUS), 87, 97-117, 2024.

3. Zaman, A., Ali, N., Khan, A., Computational biomedical simulations of hybrid nanoparticles on unsteady blood hemodynamics in a stenotic artery, *Mathematics and Computers in Simulation* (ISSN: 0378-4754; IF 1.409 Q2; SCOPUS), 169, 117-132, 2020.

4. Drapaca, C., Sivaloganathan, S., Modeling traumatic brain injuries, aneurysms, and strokes, In: Mathematical Modelling and Biomechanics of the Brain (ISBN: 978-1-4939-9809-8), Springer, NY, DOI: 10.1007/978-1-4939-9810-4_4, 2019.
Fields Institute Monographs (ISSN: 1069-5273; SJR 0.102; SCOPUS), 37, pp. 75-126, 2019.

5. Suresh, A., Rajan, V., Study of non-Newtonian blood flow through arteries using OpenFOAM, *AIP Conference Proceedings* (ISSN: 0094-243X; SJR 0.182), 2134, art. No 040003-1, 2019.

Nikolov, S., Bozhov, B., Nedev, V., Zlatanov, V., The Sherman system: bifurcations, regular and chaotic behaviour, *Comptes rendus de l'Academie bulgare des Sciences* (ISSN: 1310-1331), 56(5), 19-24, 2003.

Цитирана от:

6. Stoyanov, B., Stoyanov, B., BOOST: Medical image steganography using nuclear spin generator, *Entropy* (ISSN: 1099-4300; IF 2.419; SCOPUS), 22(5), art. No 501, 2020.

7. Paraskevov, H., Stoyanov, B., Steganographic algorithm based on chaotic random system on Raspberry Pi hardware, *AIP Conference Proceedings* (ISBN: 978-0-7354-4077-7; SJR 0.19; SCOPUS), 2333(1), 070002, 2021.

Nikolov, S., Bozhkov, B., Bifurcations and chaotic behaviour on the Lanford system, *Chaos, Solitons & Fractals* (ISSN: 0960-0779), 21(4), 803-808, 2004.

Цитирана от:

8. Юмагулов, М. Г., Габдрахманов, Р. И. (2022). О бифуркации двумерного тора в модели ЛЭнфорда, *Уфимская осенняя математическая школа*, Уфа, 28 сентября – 01 октября 2022 года, Том 2, стр. 105-107, 2022.

9. Yumagulov, M., Fazlytdinov, M., Gabdrahmanov, R., Langford model: Dynamics, bifurcations, attractors, *Lobachevskii Journal of Mathematics* (ISSN: 1995-0802; IF 0.7 Q2; SCOPUS), 44(5), 1953-1965, 2023.

10. Guo, G., Wang, J., Wei, M., Stability and Hopf bifurcation in the general Langford system, *Qualitative Theory of Dynamical Systems* (ISSN: 1662-3592; IF 1.4 Q1; SCOPUS), 22(4), 144, 2023.

11. Munteanu, F., Grin, A., Musafirov, E., Pranevich, A., Şterbeţi, C., About the Jacobi stability of a generalized Hopf–Langford system through the Kosambi–Cartan–Chern geometric theory, *Symmetry* (ISSN: 2073-8994; IF 2.94 Q1; SCOPUS), 15(3), 598, 2023.

Nikolov, S., Clodong, S., Occurrence of regular, chaotic and hyperchaotic behavior in a family of modified Rossler hyperchaotic systems, *Chaos, Solitons & Fractals* (ISSN: 0960-0779), vol. 22(2), 407-431, 2004.

Цитирана от:

12. Jahanshahi, H., Yousefpour, A., Wei, Z., Alcaraz, R., Bekiros, S., A financial hyperchaotic system with coexisting attractors: dynamic investigation, entropy analysis, control and synchronization, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 2.213; SCOPUS), 126, 66-77, 2019.

13. Yousefpour, A., Jahanshahi, H., Fast disturbance-observer-based robust integral terminal sliding mode control of a hyperchaotic memristor oscillator, *The European Physical Journal Special Topic* (ISSN: 1951-6401; IF 1.66; SCOPUS), 228(10), 2247-2268, 2019.

14. Mehdi, S., Kadhim, A., Design and analysis of a novel five-dimensional hyper-chaotic system, *ICIC Express Letters, Part B: Applications* (ISSN: 2185-2766; SJR 0.147; SCOPUS), 11(1), 103-110, 2020.

15. Dong, E., Liu, G., Wang, Z., Chen, Z., Energy conservation, singular orbits, and FPGA implementation of two new Hamiltonian chaotic systems, *Complexity* (ISSN: 1099-0526; IF 2.591; SCOPUS), 2020, art. No 8693157(15 pages), 2020.

16. Stankevich, N., Kazakov, A., Gonchenko, S., Scenarios of hyperchaos occurence in 4D Rossler system, *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832; SCOPUS), 30(12), art. 123129, 2020.

17. Yang, M., Dong, Ch., Sui, X., A new four-dimensional hyperchaotic system with hidden attractors and multistability, *Physica Scripta* (ISSN: 1402-4896; IF 2.9 Q2; SCOPUS), 98(12), 125261, 2023.

Nikolov, S., First Lyapunov value and bifurcation behaviour of specific class three-dimensional systems, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274), 14(8), 2811-2823, 2004.

Цитирана от:

18. Dong, Ch., Jia, L., Jie, Q., Li, H., Simbolic encoding of periodic orbits and chaos in the Rucklidge system, *Complexity* (ISSN:1076-2787; IF 3.642 Q1 SJR 0.67), 36(5), art. 41, 2021.

Nikolov, S., An alternative bifurcation analysis of the Rose-Hindmarsh model, *Chaos*, *Solitons* & *Fractals* (ISSN: 0960-0779), 23(5), 1643-1649, 2005.

Цитирана от:

19. Musafirov, E., Admessible perturbations of the three-dimensional Hindmarsh-Rose neuron model, *J. of Applied Analysis & Computation* (ISSN: 2156-907X; SJR 0.39 Q2; SCOPUS), 13(4), 1668-1678, 2023.

20. Yao, Zh., Wang, Ch., Zhou, P., Ma, J., Regulating synchronous patterns in neurous and networks via field coupling, *Communications in Nonlinear Science and Numerical Simulation* (ISSN: 1007-5704; IF 4.115 Q1; SCOPUS), 95, 105583, 2021.

21. Hou, Zh., Ma, J., Zhan, X., Yang, L., Jia, Y., Estimate the electrical activity in a neuron under depolarization field, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 3.764 Q1; SCOPUS), 142, 110522, 2021.

22. Em, Ph., A study of fixed points and Hopf bifurcation of Hindmarsh-Rose model, *Thu Dau Mot University Journal of Science* (ISSN: 2615-9635; Google Scholar), 2(1), 98-109, 2020.

Nikolov, S., Clodong, S. Hyperchaos-chaos-hyperchaos transition in modified Rossler type systems, *Chaos*, *Solitons* & *Fractals* (ISSN: 0960-0779), 28(1), 252-263, 2006.

Цитирана от:

23. Stankevich, N., Kuznetsov, A., Popova, E., Seleznev, E., Chaos and hyperchaos via secondary Neimark–Sacker bifurcation in a model of radiophysical generator, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 4.604 Q1; SCOPUS), 97(4), 2355-2370, 2019.

24. Kuptsov, P., Kuznetsov, S., Route to hyperbolic hyperchaos in a nonautonomous time-delay system, *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832 Q1; SCOPUS), 30(11), art. 113113, 2020.

25. Stankevich, N., Kazakov, A., Gonchenko, S., Scenarios of hyperchaos occurence in 4D Rossler system, *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832 Q1; SCOPUS), 30(12), art. 123129, 2020.

26. Yang, J., Feng, Z. & Liu, Z. A New five-dimensional hyperchaotic system with six coexisting attractors, *Qualitative Theory of Dynamical Systems* (ISSN: 1575-5460; IF 1.4; SCOPUS), 20(1), art. No 18, 2021.

27. Sataev, I. R., Stankevich, N. V., Cascade of torus birth bifurcations and inverse cascade of Shilnikov attractors merging at the threshold of hyperchaos. *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832 Q1; SCOPUS), 31(2), 023140, 2021.

28. Kuptsov, P., Kuznetsov, S., Transition to hyperbolic hyperchaos in a nonautonomous time-delay system, arXiv preprint arXiv:1908.08001, 2019 - arxiv.org, 2019.

29. Rossler, O., On the Rossler attractor, *Chaos Theory and Applications* (e-ISSN: 2687-4539; Google Scholar), 2(1), 1-2, 2020.

30. Ahmad, I., Simple chaotic jerk, hyperjerk, and hyperchaotic hyperjerk cirkuits and systems: families of self-excited and hidden attractors, *PhD thesis* (Google Scholar), Sirindhorn International Institute of Technology, Thammasat University, Thailand, 2020.

31. Monkam, Y., Kingni, S., Tchitnga, R., Woafo, P., Electronic simulation microcontroller real implementation of an autonomous chaotic and hyperchaotic system made of a Colpitts-Josephson junction like circuits, *Analog Integrated Circuits and Signal Processing. An International Journal* (ISSN: 0925-1030; IF 1.337 Q4; SCOPUS), 110(3), 395-407, 2022.

32. Petrzela, J., Chaotic and hyperchaotic dynamics of a clapp oscillator, *Mathematics* (ISSN: 2227-7390; IF 2.592 Q1 SJR 0.495 Q1; SCOPUS), 10(11), 1868, 2022.

33. Petrzela, J., Canonical hyperchaotic oscillators with single generalized transistor and generative two-terminal elements, *IEEE Access* (ISSN: 2169-3536; SJR 0.93 Q1; SCOPUS), 10, 90456-466, 2022.

34. Madani, M., Assad, S., Dridi, F., Lozi, R., Enhanced design and hardware implementation of a chaos-based block cipher for image protection, *Journal of Difference Equations and Applications* (ISSN: 1563-5120; IF 1.476 Q2; SCOPUS), 29(9-12), 1408-1428, 2023.

35. Petrzela, J., Chaotic steady state of the Reinartz oscillator: mathematical evidence and experimental confirmition, *Axioms* (EISSN: 2075-1680; IF 2.0 Q1; SCOPUS), 12(12), 1101, 2023.

Nikolov, S., Stoytchev, St., Bozhov, B., Mathematical model of blood flow pulsations in the circle of Willis, *Comptes rendus de l'Academie bulgare des Sciences* (ISSN: 1310-1331), 59(8), 831-840, 2006.

Цитирана от:

36. Момчил Ненов, *PhD-thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Yankulova, E., Wolkenhauer, O., Petrov, V., Principal difference between stability and structural stability (robustness) as used in systems biology, *Nonlinear Dynamics, Psychology, and Life Sciences* (ISSN: 1090-0578), 11(4), 413-433, 2007.

Цитирана от:

37. Paulino, N., Foo, M., Kim, J., Bates, D., Uncertainly modeling and stability robustness analysis of nucleic acid-based feedback control systems, *Proceedings of the IEEE Conference on Decision and Control* (ISSN: 0191-2216; SJR 0.591; SCOPUS), 8619072, 1077-1082, 2019.

38. Blanchini, F., Giordano, G., Structural analysis in biology: a control-theoretical approach, *Automatica* (ISSN: 0005-1098; IF 5.541 Q1; SCOPUS), 126, art. Num. 109376, 2021.

39. Pereira, B., de Souza Junior, T.P., Fadiga e exercício físico: Aspectos metabólicos, bioenergéticos e moleculares (ISBN: 978-85-7655-735-7), *Phorte Editora*, San Paulo, 2019.

40. Luchetti, M., Scientific Coordination beyond the A Priori: A Three-dimensional Account of Constitutive Elements in Scientific Practice, *PhD thesis* (Google Scholar), Central European University, Vienna, Austria, 2020.

41. La Mantia F. (2020) Structural Stability. In: Vercellone F., Tedesco S. (eds) Glossary of Morphology. *Lecture Notes in Morphogenesis* (ISBN 978-3-030-51324-5), 487-489. Springer, Cham., 2020.
42. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.
43. Parigini, C., Mathematical modeling of cell fate dynamics in homeostasis, *PhD thesis* (Google Scholar), University of Southampton-UK, 2022.
44. Galbraith, E., Whispers in murky waters: bacterioplankton interaction networks underpinning ecosystem health, *PhD thesis* (Google Scholar), Hokkaido University, Sapporo, Japan, 2022.
45. Luo, Y., Transcriptional regulation of fresh fruit development and ripening (ISBN: 978-13-941-8769-0, SCOPUS), 2023.
46. Galbraith, E., Convertino, M., The Eco-Evo mandala: simplifying bacterioplankton complexity into ecohealth signatures, *Entropy* (ISSN: 1099-4300; IF 2.524 Q1; SCOPUS), 23(11), 1471, 2021.
47. Zimatore, G., Tsuchiya, M., Hashimoto, M., Kasperski, A., Giuliani, A., Self-organization of whole-gene expression through coordinated chromatin structural transition, *AIP Biophysics Reviews* (ISSN: 2688-4089; SCOPUS), 2(3), 031303, 2021.
48. Colombo, M., Palacios, P., Non-equilibrium thermodynamics and the free energy principle in biology, *Biology & Philosophy* (ISSN: 0169-3867; IF 1.461 Q1 SJR 0.67; SCOPUS), 36(5), art. 41, 2021.
49. Marcum, J.A., The conceptual foundations in Systems medicine (ISBN: 979-889113547; SCOPUS), Nova Science Publisher Inc., pages 1-287, 2024.

Nikolov, S., Vera, J., Kotev, V., Wolkenhauer, O., Petrov, V., Dynamic properties of a delayed protein cross talk model, *BioSystems* (ISSN: 0303-2647), 91, 51-68, 2008.
Цитирана от:
50. Alrikaby, Z., Stability and Hopf bifurcation analysis of lac Operon model with distributed delay and nonlinear degradation rate, *Mathematical Medicine and Biology: A Journal of the IMA* (ISSN: 1477-8599; IF 1.4; SCOPUS), 36(4), 489-512, 2019.
51. Alrikaby, Z. Liu, X., Zhang, T., Frascoli, F., Stability and Hopf bifurcation analysis for a Lac operon model with nonlinear degradation rate and time delay, *Mathematical Biosciences and Engineering* (ISSN: 1547-1063; IF 1.23; SCOPUS), 16(4), pp. 1729-1749, 2019.
52. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Stability and bifurcation behavior of genetic regulatory systems with two delays, *Comptes rendus de l'Academie bulgare des Sciences* (ISSN: 1310-1331), 61(5), 585-594, 2008.
Цитирана от:
53. Zhang, X., Wang, Ya., Wu, L., Stability analysis of delayed GRNs, *Studies in Systems, Decision and Control* (ISSN: 2198-4182; SJR 0.102; SCOPUS), In: Analysis and design of delayed genetic regulatory networks, Springer, 207, 57-80, 2019.
54. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Dynamics and complexity in a time delay model of RNA silencing with periodic forcing, *Int. J. Bioautomation* (ISSN: 1312-451X), 10, 1-12, 2008.
Цитирана от:
55. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Vera, J., Rath, O., Kolch, W., Wolkenhauer, O., The role of inhibitory proteins as modulators of oscillations in NF*k*B signalling, *IET Systems Biology* (ISSN: 1751-8849), 3(2), 59-76, 2009.

<u>Цитирана от:</u>

56. Lu, Y., Fundamentals and control of stochastic decision-making in HIV, *PhD thesis* (Google Scholar), University of Illinois Urbana-Champaign, USA, 2022.

Lai, X., **Nikolov, S.**, Wolkenhauer, O., Vera, J., A multi-scale model accounting for the effects of JAK2-STAT5 signalling modulation in erythropoiesis, *Computational Biology and Chemistry* (ISSN: 1476-9271), 33(4), 312-324, 2009.

<u>Цитирана от:</u>

57. He, J., Zhao, Y., Zhu, T., Xue, P., Zheng, W., et al., Mercury chloride impacts on the development of erythrocytes and megakaryocytes in mice, *Toxics* (ISSN: 2305-6304, IF 4.146 Q1; SCOPUS), 9(10), 252, 2021.

Nikolov, S., Lai, X., Wolkenhauer, O., Vera, J., Time delay and protein modulation analysis in a model of RNA silencing, *Communications of SIWN Journal* (ISSN: 1757-4439), 6, 111-117, 2009.

<u>Цитирана от:</u>

58. Li, C., Y Pei, Y., Liu, Z., Zhang, R., Optimal impulsive control in RNA interference mediated by exogenous dsRNA with physiological delays, *International Journal of Biomathematics* (ISSN: 1793-5245; IF 2.2 Q2), in press, 2024.

Nikolov, S., Lai, X., Liebal, U., Wolkenhauer, O., Vera, J., Integration of sensitivity and bifurcation analysis to detect critical biochemical processes in cell signalling pathway, *International Journal of Systems Sciences* (ISSN: 1464-5319), 41(1), 81-105, 2010.

<u>Цитирана от:</u>

59. Kolokolov, Yu., Monovskaya, A., Bagrov, V., Analytics on nonlinear phenomena in dynamics of hysteresis regulators with double synchronization, *2019 International Siberian Conference on Control and Communications* (ISBN: 978-153865141-4; SCOPUS), SIBCON 2019 – *Proceedings April* 2019, IEEE Publ., Article number 8729622, 2019.

60. Encarnacion Segura, A.E., Cellular decision-making models in yeast, *PhD thesis* (Google Scholar), University of Sheffield, United Kingdom, 2020.

61. González, R. C. (2021). Integracion de analisis de sensibilidad y analisis de bifurcacion en el estudio de un modelo matematico, *PhD thesis* (Google Scholar), Universidad Autonoma del Estado de Morelos, 2021.

62. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

Nikolov, S., Vera, J., Schmitz, U., Wolkenhauer, O., A model-based strategy to investigate the role of microRNA regulation in cancer signalling networks, *Theory in Biosciences* (ISSN: 1431-7613), 130(1), 55-69, 2011.

<u>Цитирана от:</u>

63. Jurisic, V., Multiomic analysis of cytokines in immuno-oncology, *Expert Review of Proteomics* (ISSN: 1478-9450; IF 3.614; SCOPUS), 17(9), 663-674, 2020.

64. Voropaeva O.F., Lisachev P.D., Senotrusova S.D., Shokin Y.I., Hyperactivation of the p53–MicroRNA Signaling Pathway: Mathematical Model of Variants of Antitumor Therapy, *Mathematical Biology and Bioinformatics* (ISSN: 1994-6538; Google Scholar), 14(1), 355-372, 2019.

65. Момчил Ненов, *PhD thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

66. Han, Z., Wang, Q., Wu, H., Hu, Zh., Stochastic P-bifurcation in a dalayed Myc/E2F/MiR-17-92 network, *Int. J. of Bifurcations and Chaos* (ISSN: 0218-1274; IF 2.836 Q1; SCOPUS), 32(11), 2250159, 2022.

Nikolov, S., Nedev, V., Zlatanov, V., A numerical investigation of the modified Sherman systems, *Eng. Mechanics* (ISSN: 1802-1484), 18(2), 127-142, 2011.

Цитирана от:

67. Stoyanov, B., Stoyanov, B., BOOST: Medical image steganography using nuclear spin generator, *Entropy* (ISSN: 1099-4300; IF 2.419 Q1; SCOPUS), 22(5), art. No 501, 2020.

68. Ahmad, I., A Lyapunov-based direct adaptive controller for the suppression and synchronization of a perturbed nuclear spin generator chaotic system, *Applied Mathematics and Computation* (ISSN: 0096-3003; IF 3.472 Q1; SCOPUS), 395, 125858, 2021.

69. Paraskevov, H., Stoyanov, B., Steganographic algorithm based on chaotic random system on Raspberry Pi hardware, *AIP Conference Proceedings* (ISBN: 978-0-7354-4077-7; SJR 0.19; SCOPUS), 2333(1), 070002, 2021.

Nikolov, S., Vera, J., Nenov, M., Wolkenhauer, O., Dynamics of a miRNA model with two delays, *Biotechnology & Biotechnological Equipment* (ISSN: 1310-2818), 26(5), 3315-3320, 2012.

Цитирана от:

70. Wang, L., Romano, M.C., Davidson, F.A., Translational control of gene expression via interacting feedback loops, *Physical Review E* (ISSN: 1539-3755; IF 2.353; SCOPUS), 100(5), 050402(R), 2019.

71. Trofimenkoff, E., Roussel, M., Small binding-site clearance delays are not negligible in gene expression, *Mathematical Biosciences* (ISSN: 0025-5564; IF 1.68; SCOPUS), 325, art. No 108376, 2020.

72. Gao, Ch., Chen, F., Dynamics of p53 regulatory network in DNA damage response, *Applied Mathematical Modelling* (ISSN: 0307-904X; IF 3.633; SCOPUS), 88, 701-714, 2020.

73. Yaghoobi, H., Maghooli, K., Asadi-Khiavi, M., Dabanloo, N. J., GENAVOS: A new tool for modelling and analyzing cancer gene regulatory networks using delayed nonlinear variable order fractional system. *Symmetry* (ISSN: 2073-8994; IF 2.645; SCOPUS), 13(2), art. No 295, 1-19, 2021.

74. Gao, Ch., Chen, F., Stability and bifurcation analysis of a delayed genetic oscillator model, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 5.022 Q1 SJR 1.252; SCOPUS), 106, 3565-3582, 2021.

75. Yan, H., Qiao, Y., Duan, L., Miao, J., Synchronization of fractional-order gene regulatory networks mediated by miRNA with time delays and unknown parameters, *Journal of the Franklin Institute* (ISSN: 0016-0032; IF 4.504 Q1; SCOPUS), 359(5), 2176-2191, 2022.

76. Han, Z., Wang, Q., Wu, H., Hu, Zh., Stochastic P-bifurcation in a dalayed Myc/E2F/MiR-17-92 network, *Int. J. of Bifurcations and Chaos* (ISSN: 0218-1274; IF 2.836 Q1; SCOPUS), 32(11), 2250159, 2022.

77. Gao, Y., Li, N., Bifurcation control of a novel fractional-order gene regulatory network with incommensurate order and time delay, *Results in Physics* (ISSN: 2211-3797; IF 5.3 Q2; SCOPUS), 53, 106996, 2023.

Nikolov, S., Lai, X., Vera, J., MicroRNA regulation, Time delay, In: *Encyclopedia of Systems Biology, Springer*, Dubitzky, W., Wolkenhauer, O, Yokata, H., Cho, K-H (eds.), (ISBN-13:978-1-4419-9862-0), 1331-1334, 2013.

Цитирана от:

78. Kiani, M., Salehi, M., Mogheiseh, A., Mohammadi-Yeganeh, S., Shahidi, S., The effect of increased miR-16-1 levels in mouse embryos on epigenetic modification, target gene expression, and developmental processes, *Reproductive Sciences* (eISSN: 1933-7205; IF 2.559), 27(12), 2197-2210, 2020.

Nikolov, S., Wolkenhauer, O., Vera, J., Tumors as chaotic attractors, *Molecular BioSystems* (ISSN: 1742-206X), 10(2), 172-179, 2014.

Цитирана от:

79. Jerez, S., Pliego, E., Solis, F.J., Strange attractors in discrete slow power-law models of bone remodeling, *Chaos: An Interdisciplinary Journal of Nonlinear Science* (ISSN: 1054-1500; IF 2.832 Q1; SCOPUS), 31(3), 033109, 2021.

80. Orel, V., Syvak, L., Orel. V., Remote control of magnetic nanocomplexes for delivery and destruction of cancer cells, *Journal of Biomaterials Applications* (ISSN: 0885-3282; IF 2.22 Q2; SCOPUS), 36(5), 872-881, 2021.
81. Karaca, C., Relational basis of the organism's self-organization. A philosophical discussion, *PhD thesis* (Google Scholar), University of Exeter, UK, 2019.
82. Alouini, B., A new approach on the finite fractal dimension of some chaotic dynamics, *Der Pharmacia Lettre* (ISSN: 0975-5071; Google Scholar), 13(7), 132-139, 2021.
83. Kemwoue, F., Deli, V., Edima, H., Mendimi, J., Gninzanlong, C., Dedzo, M., Tagne, J., Atangaua, J., Effects of delay in a biological environment subject to tumor dynamics, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 9.922 Q1; SCOPUS), 158(2), 112022, 2022.
84. Liu, T.-M., *Ultrafast Imaging and Spectroscopy for Biomedicine* (ISBN: 978-0-7354-2467-8; Google Scholar), AIP Publishing Books, Melville, New York, 2022.
85. Singh, P., Roy, B., Chaos and multistability behaviors in 4D dissipative cancer growth/decay model with unstable line of equilibria, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 9.922 Q1; SCOPUS), 161(6), 112312, 2022.
86. Luce, S., Sayama, H., Analysis and visualization of high-dimensional dynamical systems phase space using a network-based approach, *Complexity* (ISSN: 1076-2787; IF 2.121 Q1; SCOPUS), 2022, Art. ID 3937475, 11pages, 2022.
87. Kumar, P., Jha, S., Aggarwal, R., Jha, G., (R1980) Effect of climate change on brain tumor, *Applications and Applied Mathematics: an International Journal (AAM)* (ISSN: 1932-9466; Google Scholar), 17(2), art. 17, 2022.
88. Shityakov, S., Kravtsov, V., Skorb, E., Nosonobsky, M., Ergodicity breaking and self-destruction of cancer cells by induced genome chaos, *Entropy* (ISSN: 1090-4300; SJR 0.541 Q2; SCOPUS), 26(1), 37, 2024.

Khan, F.M., Schmitz, U., **Nikolov, S.,** Engelmann, D., Putzer, B., Wolkenhauer, O., Vera, J., Hybrid modeling of the crosstalk between signaling and transcriptional networks using ordinary differential equations and multi-valued logic, *BBA (Biochimica et Biophysica Acta)- Proteins and Proteomics* (ISSN: 1570-9639), 1844(1), 289-298, 2014.

Цитирана от:

89. He, Z., Sun, J., Stability analysis of time-delay discrete systems with logic impulses, *Communications in Nonlinear Science and Numerical Simulation* (ISSN: 1007-5704; IF 3.181 Q1; SCOPUS), 78, Art. Number 104842, 2019.
90. He, Z., Sun, J., Ultimate boundedness of discrete stochastic time-delay systems with logic impulses, *Neural Computing and Applications* (ISSN: 1433-3058; IF 4.213 Q1; SCOPUS), 32(10), 5805-5813, 2020.
91. Khatibi, Sh., Signalling and crosstalk in cytokine pathways: mathematical modeling and qualitative analysis, *PhD thesis* (Google Scholar), University of Melbourne, Australia, 2016.
92. Poret, A., Sousa, C., Boissel, J.-P., Enhancing Boolean networks with continuous logical operators and edge tuning, *bioRxiv*, doi:http://dx.doi.org/10.1101/584243, 30 pages, 2019.
93. Georgiou, G., From chromatin to gene regulatory networks in embryonic development and evolution (ISBN: 978-94-028—1646-4; Google Scholar), *PhD thesis*, Radboud University Nijmegen, Netherlands, 2019.
94. Li, R., He, Zh., Stability analysis of time-delay differential systems with impulsive effect suffered by logic choice, *Results in Control and Optimization* (ISSN: 2666-7207; SCOPUS), 4, 100026, 2021.
95. Cruz, D., Kemp, M., Hybrid computational modeling methods for systems biology, *Progress in Biomedical Engineering* (ISSN: 2516-1091; SCOPUS), 4(1), 012002, 2022.

Islam, M., Islam, N., **Nikolov, S.,** Adaptive control and synchronization of Sprott J system with estimation of fully unknown parameters, *J. of Theoretical and Applied Mechanics* (ISSN: 0861-6663), 45(2), 43-56, 2015.

Цитирана от:

96. Nguazon, T., Nguekeng, T., Tchitinga, R., Fomethe, A., Simple finite-time sliding mode control approach for jerk systems, *Advances in Mechanical Engineering* (ISSN: 1687-8140; IF 1.024; SCOPUS), 11(1), 1-11, 2019.

97. Wang, L., Jianbao, Zh., Sun, W., Adaptive outer synchronization and topology identification between two complex dynamical networks with time-varying delay and disturbance, *IMA Journal of Mathematical Control and Information* (ISSN: 0265-0754; IF 1.0; SCOPUS), 36(3), 949-961, 2019.

98. Gong, J., Chen, G., Hu, H., Yu, W., Parameters identification and synchronization of complex dynamical networks with time-varying delays via linear control, *2019 Tenth Int. Conference on Intelligent Control and Information Processing (ICICIP)*, Marrakesh, Morocco (ISBN: 978-1-7281-0015-9; Google Scholar), 250-257, 2019.

99. Cui, Zh., Zhong, D., Qui, X., Synchronization analysis of new four-dimensional time-delay Lorenz system and its circiut experiments, *Applied Sciences* (ISSN: 2076-3417; IF 2.838 Q2; SCOPUS), 12(20), 10557, 2022.

100. Laouira, W., Hamri, N., New design of stability study for linear and nonlinear feedback control of chaotic systems, *Nonlinear Dynamics and Systems Theory* (ISSN: 1813-7385; SJR 0.33 Q3; SCOPUS), 22(4), 414-423, 2022.

Nikolov, S., Nedkova, N., Gyrostat model regular and chaotic behaviour, *J. of Theoretical and Applied Mechanics* (ISSN: 0861-6663), 45(4), 15-30, 2015.

Цитирана от:

101. He, J., Cai, J., Dynamics analysis of a gyrostat system with intermittent, *Proc. of the Institution of Mechanical Engineering Part I, Journal of Systems and Control Engineering* (ISSN: 0959-6518; IF 1.714 SJR 0.35 Q2; SCOPUS), 236(4), 696-706, 2022.

102. Kosov, A., Semenov, E., On first integrals and stability of stationary motions of gyrostat, *Physica D: Nonlinear Phenomena* (ISSN: 0167-2789; IF 2.3 Q1; SCOPUS), 430, 133103, 2022.

103. Huang, Sh., Wu, R., Wang, Y., Sun, Y., Zhang, J., Li, X., Inferring user input through smartphone gyroscope, 2nd Int. Conference on Consumer Electronics and Computer Engineering (ICCECE) (ISBN:978-1-6654-0887-5; Google Scholar), 623-628, 2022.

104. Taheri, A., Setoudeh, F., Tavakoli, M., Feizi, E., Nonlinear analysis of memcapacitor-based hyperchaotic oscillator by using adaptive multi-step differential transform method, *Chaos, Solitons & Fractals* (ISSN: 0960-0779; IF 9.922 Q1; SCOPUS), 159(2), 112122, 2022.

105. Samuilik, I., Lyapunov exponents and Kaplan-Yorke dimension for five dimensional system, *WSEAS Transactions on Systems* (E-ISSN: 2224-2678 SJR 0.12 Q4; SCOPUS), 21, 268-275, 2022.

106. Kozlovska, O., Samuilik, I., Quasi-periodic solutions for a three-dimensional system in gene regulatory network, *WSEAS Transactions on Systems* (E-ISSN: 2224-2678; SJR 0.12 Q4; Google Scholar), 22, 727-733, 2023.

107. Kozlovska, O., Sadyrbaev, F., Samuilik, I., A new 3D chaotic attractor in gene regulatory network, *Mathematics* (EISSN: 2227-7390; IF 2.4 Q1; SCOPUS), 12(1), 100, 2024.

Nikolov, S., Nedkova, N., Dynamical behavior of a rigid body with one fixed Point (gyroscope). Basic concepts and results. Open problems: a review, *J. of Applied and Computational Mechanics* (ISSN: 2383-4536), 1(4), 187-206, 2015.

Цитирана от:

108. Kosov, A., Semenov, E., On first integrals and stability of stationary motions of gyrostat, *Physica D: Nonlinear Phenomena* (ISSN: 0167-2789; IF 2.3 Q1; SCOPUS), 430, 133103, 2022.

109. Kosov, A., Semonov, E., On the movement of gyrostat under the action of potential and gyroscopic forces, *Zhurnal Srednovolzhskogo Matematicheskogo Obshchestva* (ISSN: 2079-6900; Google Scholar), 24(1), 66-75, 2022.

110. Kammel, Ch., Ullmann, I., Vossiek, M., Motion parameter estimation of free-floating space debris objects based on MIMO radar, *IEEE Transactions on Radar Systems* (EISSN: 2832-7357; Google Scholar), 1, 681-697, 2023.

111. Fan, Ch., Wu, Y., Gu, L., Wang, Z., Liu, W., Cui, F., Automtic feedthrough cancellation methods for MEMS gyroscopes, *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science* (ISSN: 0954-4062; IF 2.0 Q2; SCOPUS), in press, 2023.

112. Bu, F., Feng, R., Guo, Sh., Zhou, M., Wang, Y., Wang, F., Temperature drift suppression for micro-electro-mechanical system gyroscope based on vibrationaldisplacement control with harmonic amplitude ratio, *Micro&Nano Letters* (ISSN: 1750-0443; IF 1.3 Q3; SCOPUS), 19(1), e12187, 2024.

Nikolov, S., Nedev, V., Bifurcation analysis and dynamic behaviour of an inverted pendulum with bounded control, *J. of Theoretical and Applied Mechanics* (ISSN: 0861-6663), 46(1), 17-32, 2016.

Цитирана от:

113. Madni, Z., Guesmi, K., Benalia, A., Backstepping control of abnormal behaviours in DC-Dc boost converter, Int. Conf. on Electrical Eng. and Control Appl. (ICEECA 2017): Advanced Control Eng. Methods in Electrical Eng. Systems, In: *Lecture Notes in Electrical Engineering* (ISSN: 1876-1100, ISBN: 978-3-319-97816-1; SJR 0.135; SCOPUS) Springer, 522, pp. 3-13, 2019.

114. Gohatre, U.B., Singla, C.R., Patil, V.P., The performance of ball during flight incorporate lift force, drag, gravity and high turning velocity trajectories tracking prediction, *International Journal of Recent Technology and Engineering* (ISSN: 2277-3878; IF SCOPUS), 8(2 Special Issue 11), 3252-3256, 2019.

115. Ivanov, A., Javorova, J., Three dimensional golf ball flight, *Tehnomus* (ISSN: 1224-029X; Google Scholar), 24(1), 54-61, 2017.

116. Kovalchuk, V., Bifurcation analysis of the stability of one dynamical system with a follower force, *Transport Systems and Technologies* (ISSN: 2617-9040; Google Scholar), 2(33), 38-49, 2019.

117. Kharola, A., Pokhriyal, V., PID based control of cart and pendulum system in simscape environment, *AIP Conf. Proc* (ISSN: 1551-7616; Google Scholar), 2978(1), 060007, 2024.

Santos, G., **Nikolov, S.,** Lai, X., Eberhardt, M., Dreyer, F., Paul, S., Schuler, G., Vera, J., Model-based genotype-phenotype mapping used to investigate gene signatures of immune sensitivity and resistance in melanoma micrometastasis, *Scientific Reports* (ISSN: 2045-2322), 6, art. No 24967, 2016.

Цитирана от:

118. Buetti-Dinh, A., Herold, M., Christel, S. *et al.* Reverse engineering directed gene regulatory networks from transcriptomics and proteomics data of biomining bacterial communities with approximate Bayesian computation and steady-state signalling simulations. *BMC Bioinformatics* (ISSN: 1471-2105; IF 2.511; SCOPUS) 21(1), art No 23, 2020.

119. Albrecht, M., Lucarelli, P., Kulms, D., Sauter, T., Computational models of melanoma, *Theoretical Biology and Medical Modelling* (ISSN: 1742-4682; IF 1.568; SCOPUS), 17(1), 8, 2020.

120. Mohammadi, H., Kheshti, M. (2021). Long-life control of tumor growth via synchronizing to a less severe case. *Biomedical Signal Processing and Control* (ISSN: 1746-8094; IF 3.137; SCOPUS), 68, 102727, 2021.

121. Shen, Y., Kudla, G., Oyarzún, D., DNA representations and generalization performance of sequence-toexpression models, BioRxiv; doi: https://doi.org/10.1101/2024.02.06.579067., 2024.

Nikolov, S., Zaharieva, D., Dynamics of swing oscillatory motion in Hamiltonian formalism, *Mechanics*, *Transport*, *Communications* (ISSN: 1312-3823), 15(3), VII7-VII12, art. ID 1495, 2017.

Цитирана от:

122. Klimina, L., Formalskii, A., Three-link mechanism as a model of a person on a swing, *J. of Computer and Systems Sciences International* (ISSN: 1555-6530; IF 0.538; SCOPUS), 59(5), 728-744, 2020.

123. Климина, Л.А., Формальский, А.М., Трехзвенный механизм как модель человека на качелях, *Известия Российской Академии Наук. Теория и Системы Управления* (ISSN: 1029-3620; Google Scholar), № 5, стр. 89-105, 2020.

Nikolov, S., Santos, G., Wolkenhauer, O., Vera, J., Model-based phenotypic signatures governing the dynamics of the stem and semi-differentiated cell populations in dysplastic colonic crypts, *Bulletin of Mathematical Biology* (ISSN: 0092-8240), 80(2), 360-384, 2018.

Цитирана от:

124. Stiehl, T., Marciniak-Czochra, A., How to characterize stem cells? Contribution from mathematical modeling, *Current Stem Cell Reports* (ISSN: 2198-7866; IF 1.82; SCOPUS), 5(2), 57-65, 2019.

Nikolov, S., Nenov, M., Modelling vaccine quantity in mathematical models of melanoma treatment, *Series on Biomechanics* (ISSN: 1313-2458), 32(4), 19-25, 2018.

Цитирана от:

125. Koprinkova-Hristova P., Research on artificial neural networks in Bulgarian Academy of Sciences. In: Atanassov K.T. (eds) *Research in Computer Science in the Bulgarian Academy of Sciences. Studies in Computational Intelligence* (ISBN 978-3-030-72284-5; SJR 0.19 Q4; SCOPUS), vol. 934, 287-304, Springer, Cham., 2021.

126. Kalhor, E., Noori, A. Afshari, J.T., Rad, S.S., Modeling for the body defense mechanisms in stage I melanoma patient and sensitivity analysis by using Partial Rank Correlation Coefficient (PRCC) method, *Journal of Control* (ISNN: 2008-8345; Google Scholar), 15(2), 159-175, 2021.

Nikolov, S., Dimitrov, A., Vera, J., Hierarchical levels of biological systems and their integration as a principal cause for tumour occurrence, *Nonlinear Dynamics, Psychology, and Life Sciences* (ISSN: 1090-0578), 23(3), 315-329, 2019.

Цитирана от:

127. Момчил Ненов, *PhD-thesis*, Моделно базираща стратегия за изследване влиянието на микро-РНК върху ракови сигнални пътеки, ИМех-БАН, Октомври 2019 г.

128. Ruiz-Arrebola, S., Guirado, D., Villalobos, M., Lallena, A., Evaluation of classical mathematical models of tumor growth using an on-lattice agent-based Monte Carlo model, *Applied Sciences* (ISSN: 2076-3417; IF 2.474 Q1; SCOPUS), 11(11), art. No 5241, 2021.

Zlatanov, V., **Nikolov, S.,** Vibrations of a chain in the braking regime of the motion mechanism in load-lifting machines, *Lecture Notes in Mechanical Engineering* (ISSN: 2195-4356), In: *Advances in Mechanical Engineering* (ISBN-13: 978-3030119805). Selected Contributions from the Conference "Modern Engineering: Science and Education", Springer, pp. 221-232, 2019.

Цитирана от:

129. Bahrami, M.R., Mechanical challenges of inspection robot moving along the electrical line: effect of flexural rigidity, *Lecture Notes in Mechanical Engineering* (ISSN: 2195-4356; SJR 0.165; SCOPUS), In: *International Conference Modern Engineering: Science and Education*. Springer, 30-37, 2021.

130. Vorob'eva, N., Zhoga, V., Zhoga, L., Dynamic synthesis of paralel-sequental structure manipulator control algorithms, *Mechatronics, Automation, Control* (ISSN: 1684-6427; SJR 0.24 Q3; SCOPUS), 21(12), 706-715, 2020. (in Russian)

Nikolov, S., Wolkenhauer, O., Vera, J., Nenov, M., The role of cooperativity in a p53-miR34 dynamical mathematical model, *Journal of Theoretical Biology* (ISSN: 0022-5193), 495, art. No 110252, 2020.

<u>Цитирана от:</u>

131. Jan, A., Shah, R., Ahmad, H., Bilal, H., Almohsen, B., Dynamic behavior of enzyme kinetics cooperative chemical reactions, *AIP Advances* (ISSN: 2158-3226; IF 1.6 Q2; SCOPUS), 14(3), 035139, 2024.

Uzunov, I.M., **Nikolov, S.G.,** Influence of the higher-order effects on the solutions of complex cubic-quintic Ginzburg – Landau equation, *Journal of Modern Optics* (ISSN: 0950-0340), 67(7), 606-618, 2020.

<u>Цитирана от:</u>

132. Seadawy, A., Zahed, H., Rizvi, S., Diverse forms of breathers and rogue wave solutions for the complex cubic quintic Ginzburg-Landau equation with intrapulse Raman scattering, *Mathematics* (ISSN: 2227-7390; IF 2.592 Q1 SJR 0.495; SCOPUS), 10(11), 1818, 2022.

133. Lin, D., Dong, K., Zhang, J., Shen, Y., Effect of near PT-symmetric potentials on nonlinear modes for higher-order generalized Ginzburg-Landau model, *Communications in Theoretical Physics* (ISSN: 0253-6102; IF 3.1 Q2 SJR 0.44; SCOPUS), 74(12), 125001, 2022.

134. Vassilev, V., Exact solutions to a family of complex Ginzburg-Landau equations with cubic-quintic nonlinearity, *arXiv preprint arXiv:2304.07271*, 2023 - arxiv.org, 2023.

135. Vassilev, V., Exact solutions to a family of nonlinear Schrödinger equations, *Journal of Physics: Conference Series* (ISSN: 1742-6596 SJR 0.18; SCOPUS), 2667(1), 012070, 2023.

Nikolov, S., Vassilev, V., Completely integrable dynamical systems of Hopf-Langford type, *Communications in Nonlinear Science and Numerical Simulation* (ISSN: 1007-5704), 92, art. No 105464, 2021.

<u>Цитирана от:</u>

136. Musafirov, E., Grin, A., Pranevich, A., Admissible perturbations of a generalized Langford system, *Int. J. of Bifurcations and Chaos* (ISSN: 0218-1274; IF 2.836 Q1; SCOPUS), 32(3), 2250038, 2022.

137. Munteanu, F., Grin, A., Musafirov, E., Pranevich, A., Şterbeţi, C., About the Jacobi stability of a generalized Hopf–Langford system through the Kosambi–Cartan–Chern geometric theory, *Symmetry* (ISSN: 2073-8994; IF 2.94 Q1; SCOPUS), 15(3), 598, 2023.

138. Guo, G., Wang, J., Wei, M., Stability and Hopf bifurcation in the general Langford system, *Qualitative Theory of Dynamical Systems* (ISSN: 1662-3592; IF 1.4 Q1; SCOPUS), 22(4), 144, 2023.

139. Yumagulov, M., Fazlytdinov, M., Gabdrahmanov, R., Langford model: Dynamics, bifurcations, attractors, *Lobachevskii Journal of Mathematics* (ISSN: 1995-0802; IF 0.7 Q2; SCOPUS), 44(5), 1953-1965, 2023.

140. Zhong, J., Liang, Y., Invariant tori and heteroclinic invariant ellipsoids of a generalized Hopf-Langford system, *Int. J. of Bifurcation and Chaos* (ISSN: 0218-1274; IF 2.2 Q1; SCOPUS), 33(13), 2350153, 2023.

141. Ryehan, Sh., Numerically unveiling hidden chaotic dynamics in nonlinear differential equations with Riemann-Liouville, Caputo-Fabrizio, and Atangana-Baleanu fractional derivatives, *arXiv preprint arXiv:2307.03251*, 2023.

142. Chatibi, Y., Analytical solutions of virus propagation model in blockchain networks, *arXiv preprint arXiv:2304.12980*, 2023.

143. Fu, Y., Li, J., Bifurcations of invariant torus and knotted periodic orbits for the generalized Hopf-Langford system, *Nonlinear Dynamics* (ISSN: 0924-090X; IF 5.022 Q1 SJR 1.252; SCOPUS), 106(3), 2097-2105, 2021.

144. Chatibi, Y., Analytical solutions of virus propagation model in blockchain netwotks, *Quaestiones Mathematicae* (ISSN: 1607-3606; SJR .38 Q3), in ress, 2024.

Vera, J., Lischer, Ch., Nenov, M., **Nikolov, S.,** Lai, X., Eberhardt, M., Mathematical modelling in biomedicine: A primer for the curious and the skeptic, *Int. J. of Molecular Sciences* (EISSN: 1422-0067), 22(2), art. No 547, 1-16, 2021.

Цитирана от:

145. Budde, K., Smith, J., Wilsdorf, P., Haack, F., Uhrmacher, A. M. (2021). Relating simulation studies by provenance—Developing a family of Wnt signaling models, *bioRxiv*, 2021.

146. Ruiz-Arrebola, S., Guirado, D., Villalobos, M., Lallena, A., Evaluation of classical mathematical models of tumor growth using an on-lattice agent-based Monte Carlo model, *Applied Sciences* (ISSN: 2076-3417; IF 2.474 Q1; SCOPUS), 11(11), art. No 5241, 2021.

147. Panteleev, M., Systems approaches meet biology and physiology: why do we need yet another journal?, *System Biology and Physiology Reports* (ISSN: 2733-2993; Google Scholar), 1(1), 1-2, 2021.

148. Gamboa, D., Coria, L., Valle, P., Ultimate bounds for a diabetes mathematical model considering glucose homeostasis, *Axioms* (ISSN: 2075-1680; IF 1.824 Q2; SCOPUS), 11(7), 320, 2022.

149. Kulenova, N., Dogadkin, D., Azamatov, B., Sadenova, M., Beisekenov, N., Shaimardanov, Zh., Mursalov, N., Modeling and manufacturing of individual implants for traumatology and orthopedics, *Chemrcal Engineering Transactions* (ISSN: 2283-9216; SJR 0.25 Q3; SCOPUS), 94, 793-798, 2022.

150. Angelov, R., Manjunath, G., Phiri, A., Nyakudya, T., Bipath, P., Serem, J., Hlophe, Y., Quantifying assays: a modelling tale of variability in cancer therapeutics assesed on cancer cells, arXiv:2207.08449 [q-bio.QM], 2022.

151. Hussain, Sh., Yates, C., Campbell, M., Vitamin D and Systems biology, *Nutrients* (ISSN: 2072-6643; IF 6.706 Q1; SCOPUS), 14(24), 5197, 2022.

152. Kopacz, A., The novel mechanisms of the regulation of the endothelial cell functions and aortic pathology–focus on NRF2/KEAP1 axis and microRNA-34a, *PhD thesis* (Google Scholar), Jagiellonian University in Kraków, Poland, 2022.

153. Yang, L., Pharmacometric methods in pharmacology: mathematical modelling of orthosteric and allosteric modulations of the CB1 receptor, *PhD thesis* (Google Scholar), the University of Otago, Dunedin, New Zealand, 2022.

154. Österberg, L., Towards a comprehensive modelling framework for studying glucose repression in yeast, *PhD thesis* (Google Scholar), Chalmers University of Technology, Gothenburg, Sweden, 2022.

155. Naskinova, I., Transfer learning with nasnet-mobile for pneumonia X-Ray classification, *Asia-European Journal of Mathematics* (ISSN: 1793-7183; SJR 0.294), 16(1), 2250240 2023.

156. Sharma, N., Computational and statistical aspects to classify the solvents effects on Dynamics of O_2 molecule, *Investigacion Operacional* (ISSN: 0257-4306; SJR 0.193 Q3), 45(1), 49-84, 2024.

157. Staroverov, V., Galatenko, A., Knyazev, E., Tonevitsky, a., Mathematical model explains differences on Omicron and Delta SARS-CoV-2 dynamics in Caco-2 and Calu-3 cells, *Peer J* (ISSN: 2167-8359; SJR 0.7 Q1), 12(7), e16964, 2024.

Nikolov, S., Vassilev, V., Dynamics of Rossler Prototype-4 System: Analytical and numerical investigation, *Mathematics* (ISSN: 2227-7390), 9(4), art. No 352, 2021.

Цитирана от:

158. Zhangyi, S., Linli, W., Yongxin, Z., Imani, H., Synchronization and anti-synchronization of a novel fractional order chaotic system with a quadratic term, *Int. J. of Modelling and Simulation* (ISSN: 0228-6203; IF 3.1 SJR 0.451 Q1), 43(4), 325-346, 2023.

Michailova, P., Lencioni, V., Nenov, M., **Nikolov, S.**, Can DNA barcoding be used to identify closely related Clunio Haliday, 1855 species (Diptera: Chirono midea)?, *Zootaxa* (ISSN: 1175-5326), 4927(1), 001-008, 2021.

Цитирана от:

159. Bolshakov, V., Prokin, A., Karyotype and COI sequences of Chironomus sokolovae Istomina, Kiknadze et Siirin, 1999 (Diptera,Chironomidae) from the bay of Orkhon River, Mongolia, *Comparative Cytogenetics* (ISSN: 1993-0771; SJR 0.49; SCOPUS), 15(2), 149-157, 2021.

160. Qi, X., Yao, Y., Liu, W.-B., Yan, Ch.-C., Wang, X.-H., Liu, X.-L., Review of the *Rheotanytarsus muscicola* species group from China (Diptera: Chironomidae), *Diversity* (ISSN: 1424-2818; IF 2.465 Q1; SCOPUS), 14(5), 383, 2022.

161. Mrozińska, N., Obolewski, K., Morphological taxonomy and DNA barcoding: Should they be intergrated to improve the identification of chironomid larvae (Diptera)?, *Ecohydrology and Hydrobiology* (ISSN: 1642-3593; SJR 0.708 IF 2.6 Q1; SCOPUS), in press 2023.

162. Han, W., Tang, H., Wei, L., Zhang, E., The first DNA barcode library of Chironomidae from the Tibetan Plateau with an evaluation of the status of the public databases, *Ecology and Evolution* (ISSN: 2045-7758; SJR 0.98 Q1; SCOPUS), 13(2), e9849, 2023.

Nikolov, S., Vassilev, V., Zaharieva, D., Analysis of swing oscillatory motion, *Studies in Computational Intelligence* (ISSN: 1860-949X), In: *Advanced Computing in Industrial Mathematics: 13th Annual Meeting of the Bulgarian Section of SIAM, December 18–20, 2018, Sofia, Bulgaria, Revised Selected Papers*. Springer Nature. pp. 313-323, 2021.

Цитирана от:

163. Hirata, Ch., Kitahara, Sh., Yamamoto, Y., Gohara, K., Richardson, M., Initial phase and frequency modulations of pumping a playground swing, *Physical Review E* (ISSN: 2470-0053; IF 2.707 Q1), 107(4), 044203, 2023.

Nikolov, S.G., Vassilev, V.M., Assessing the non-linear dynamics of a Hopf-Langford type system, *Mathematics* (ISSN 2227-7390), 9(18), art. No 2340, 2021.

Цитирана от:

164. Munteanu, F., Grin, A., Musafirov, E., Pranevich, A., Şterbeţi, C., About the Jacobi stability of a generalized Hopf–Langford system through the Kosambi–Cartan–Chern geometric theory, *Symmetry* (ISSN: 2073-8994; IF 2.94 Q1; SCOPUS), 15(3), 598, 2023.

165. Guo, G., Wang, J., Wei, M., Stability and Hopf bifurcation in the general Langford system, *Qualitative Theory of Dynamical Systems* (ISSN: 1662-3592; IF 1.4 Q1; SCOPUS), 22(4), 144, 2023.

Nikolov, S., Wolkenhauer, O., Nenov, M., Vera, J., Detection and analysis of critical dynamic properties of oligodendrocyte differentiation, *Mathematics* (ISSN: 2227-7390), 10(16), 2928, 2022.

Цитирана от:

166. Shkirin, A., Chirikov, S., Suyazov, N., Reut, V., Grigorieva, D., Gorudko, L., Bruskov, V., Gugkov, S., Modeling the kinetics of the singlet oxygen effect in aqueous solutions of proteins exposed to thermal and laser radiation, *Mathematics* (ISSN: 2227-7390; IF 2.592 Q1 SJR 0.495; SCOPUS), 10, 4295, 2022.

Uzunov, I., Arabadzhiev, T., **Nikolov, S.**, Self-steepening and intrapulse Raman scattering in the presence of nonlinear gain and its saturation, *Optik* (ISSN: 0030-4026), 271, 170137, 2022.

Цитирана от:

167. Kudryashov, S., Danilov, P., Chen, J., Intrapulse correlated dynamics of self-phase modulation and spontaneous Raman scattering in synthesis diamond excited and probed by positively chirped ultrashort laser pulses, *Photonics* (E-ISSN: 2304-6732; IF 2.536 Q2; SCOPUS), 10(6), 626, 2023.

168. Mukherjee, R., Borgohain, N., Impact of self-steepening and intra-pulse Raman scattering on modulation instability in multiple quantum wells, *The European Physical Journal Plus* (ISSN: 2190-5444; IF 3.4 Q2; SCOPUS), 138(9), 867, 2023.

Stoytchev, St., **Nikolov, S.,** Effects of flow-dependent and flow-independent viscoelastic mechanisms on the stress relaxation of articular cartilage, *Series on Biomechanics* (ISSN: 1313-2458), 37(1), 43-50, 2023.

Цитирана от:

169. Zvetkova, E., Koytchev, E., Ivanov, I., Ranchev, S., Antonov, A., Biomechanical, healing and therapeutic effects of stretching: a comprehensive review, *Applied Sciences* (ISSN: 2076-3417; IF 2.7 Q1; SCOPUS) 13(15), 8596, 2023.

Uzunov, I., Vassilev, V., Arabadzhiev, T., **Nikolov, S.,** Kink solutions of the complex cubic– quintic Ginzburg-Landau equation in the presence of intrapulse Raman scattering, *Optik* (ISSN: 0030-4026), 286, 171033, 2023.

Цитирана от:

170. Serkin, V.N., Belyaeva, T.L., Well-dressed repulsive-core solitons and nonlinear optics of nuclear reactions, *Optics Communications* (ISSN: 0030-4018; IF 2.4 Q2; SCOPUS), 549, 129831, 2023.

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