

**Перечень научных трудов Кузнецова Н.В. за 2015-2019 гг., выдвигаемых на конкурс.
“Теория скрытых колебаний и устойчивость динамических систем”**

Web of Science Highly Cited Papers

1. N.V. Kuznetsov, G.A. Leonov, T.N. Mokaev, A. Prasad, M.D. Shrimali, Finite-time Lyapunov dimension and hidden attractor of the Rabinovich system, **Nonlinear Dynamics**, 92(2), 2018, 267-285 (<https://doi.org/10.1007/s11071-018-4054-z>) [Q1, SJR=1.39, <https://www.scimagojr.com/journalsearch.php?q=21576&tip=sid>; Web of Science Highly cited paper: “As of March/April 2020, this highly cited paper received enough citations to place it in the top 1% of the academic field of Engineering based on a highly cited threshold for the field and publication year”]
2. Kuznetsov N.V., Leonov G.A., Yuldashev M.V., Yuldashev R.V., Hidden attractors in dynamical models of phase-locked loop circuits: limitations of simulation in MATLAB and SPICE, **Communications in Nonlinear Science and Numerical Simulation**, vol. 51, 2017, pp. 39-49 (<http://dx.doi.org/10.1016/j.cnsns.2017.03.010>) [Q1, SJR=1.3, <https://www.scimagojr.com/journalsearch.php?q=25807&tip=sid>, Web of Science Highly cited paper: “As of March/April 2020, this highly cited paper received enough citations to place it in the top 1% of the academic field of Physics based on a highly cited threshold for the field and publication year”]
3. D. Dudkowski, S. Jafari, T. Kapitaniak, N. V. Kuznetsov, G. A. Leonov, A. Prasad, Hidden attractors in dynamical systems, **Physics Reports**, 637, 2016, pp. 1-50 (<http://dx.doi.org/10.1016/j.physrep.2016.05.002>) [Q1, SJR=8.07, <https://www.scimagojr.com/journalsearch.php?q=29229&tip=sid>, Web of Science Highly cited paper: “As of March/April 2020, this highly cited paper received enough citations to place it in the top 1% of the academic field of Physics based on a highly cited threshold for the field and publication year”]
4. Leonov G.A., Kuznetsov N.V., Mokaev T.N., Hidden attractor and homoclinic orbit in Lorenz-like system describing convective fluid motion in rotating cavity, **Communications in Nonlinear Science and Numerical Simulation**, 28(1-3), 2015, 166-174 (<http://dx.doi.org/10.1016/j.cnsns.2015.04.007>) [Q1, SJR=1.3, <https://www.scimagojr.com/journalsearch.php?q=25807&tip=sid>, Web of Science Highly cited paper: “As of March/April 2020, this highly cited paper received enough citations to place it in the top 1% of the academic field of Physics based on a highly cited threshold for the field and publication year”]
5. Leonov G.A., Kuznetsov N.V., Mokaev T.N., Homoclinic orbits, and self-excited and hidden attractors in a Lorenz-like system describing convective fluid motion, **European Physical Journal Special Topics**, 224, 2015, pp. 1421-1458 (<http://dx.doi.org/10.1140/epjst/e2015-02470-3>) [Q2, SJR=0.58, <https://www.scimagojr.com/journalsearch.php?q=5600152816&tip=sid>, Web of Science Highly cited paper: “As of March/April 2020, this highly cited paper received enough citations to place it in the top 1% of the academic field of Physics based on a highly cited threshold for the field and publication year”]
6. P.R. Sharma, M.D. Shrimali, A. Prasad, N.V. Kuznetsov, G.A. Leonov, Control of multistability in hidden attractors, **European Physical Journal Special Topics**, 224, 2015, 1485–1491 (<https://dx.doi.org/10.1140/epjst/e2015-02474-y>) [Q2, SJR=0.58, <https://www.scimagojr.com/journalsearch.php?q=5600152816&tip=sid>, Web of Science Highly cited paper: “As of March/April 2020, this highly cited paper received enough citations to place it in the top 1% of the academic field of Physics based on a highly cited threshold for the field and publication year”]
7. Sharma P.R., Shrimali M.D., Prasad A., Kuznetsov N.V., Leonov G.A., Controlling dynamics of hidden attractors, **International Journal of Bifurcation and Chaos**, 25, 2015, art. num. 1550061 (<http://dx.doi.org/10.1142/S0218127415500613>) [Q1, SJR=0.72, <https://www.scimagojr.com/journalsearch.php?q=12337&tip=sid>, Web of Science Highly cited paper: “As of March/April 2020, this highly cited paper received enough citations to place it in the top 1% of the academic field of Mathematics based on a highly cited threshold for the field and publication year”]
8. Leonov G.A., Kuznetsov N.V., On differences and similarities in the analysis of Lorenz, Chen and Lu systems, **Applied Mathematics and Computation**, Vol. 256, 2015, pp. 334–343 (doi:10.1016/j.amc.2014.12.132) [Q1, SJR=0.97, <https://www.scimagojr.com/journalsearch.php?q=25170&tip=sid>, Web of Science Highly cited paper: “As of March/April 2020, this highly cited paper received enough citations to place it in the top 1% of the academic field of Mathematics based on a highly cited threshold for the field and publication year”]

Международные журналы Q1-Q2 (<https://www.scimagojr.com/>, по SJR за 2019 год)

9. M.-F. Danca, N.V. Kuznetsov, Matlab Code for Lyapunov Exponents of Fractional-Order Systems, **International Journal of Bifurcation and Chaos**, 28(5), 2018, art. num. 1850067 (<http://dx.doi.org/10.1142/S0218127418500670>) [Q1, SJR 0.71: <https://www.scimagojr.com/journalsearch.php?q=12337&tip=sid>]
10. M.-F. Danca, N.V. Kuznetsov, G. Chen, Approximating hidden chaotic attractors via parameter switching, **CHAOS**, 2018, (<https://doi.org/10.1063/1.5007925>) [Q1, SJR 0.93: <https://www.scimagojr.com/journalsearch.php?q=27430&tip=sid>]

11. M.-F. Danca, M. Feckan, N.V. Kuznetsov, G. Chen, Fractional-order PWC systems without zero Lyapunov exponents, **Nonlinear Dynamics**, 92(3), **2018**, 1061-1078 (<http://doi.org/10.1007/s11071-018-4108-2>) [Q1, SJR 1.39: <https://www.scimagojr.com/journalsearch.php?q=21576&tip=sid>]
12. M.-F. Danca, M. Feckan, N.V. Kuznetsov, G. Chen, Complex dynamics, hidden attractors and continuous approximation of a fractional-order hyperchaotic PWC system, **Nonlinear Dynamics**, **2018**, (<https://doi.org/10.1007/s11071-017-4029-5>) [Q1, SJR 1.39: <https://www.scimagojr.com/journalsearch.php?q=21576&tip=sid>]
13. N.V. Stankevich, N.V. Kuznetsov, G.A. Leonov, L. Chua, Scenario of the birth of hidden attractors in the Chua circuit, **International Journal of Bifurcation and Chaos**, 27(12), **2017**, art. num. 1730038 (<https://doi.org/10.1142/S0218127417300385>) [Q1, SJR 0.71: <https://www.scimagojr.com/journalsearch.php?q=12337&tip=sid>]
14. G. Chen, N.V. Kuznetsov, G.A. Leonov, T.N. Mokaev, Hidden attractors on one path: Glukhovskiy-Dolzhanovskiy, Lorenz, and Rabinovich systems, **International Journal of Bifurcation and Chaos**, 27(8), **2017** art. num. 1750115 (<https://doi.org/10.1142/S0218127417501152>) [Q1, SJR 0.71: <https://www.scimagojr.com/journalsearch.php?q=12337&tip=sid>]
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16. M.-F. Danca, N.V. Kuznetsov, Hidden chaotic sets in a Hopfield neural system, **Chaos, Solitons, and Fractals**, vol. 103, **2017**, 144-150 (<http://dx.doi.org/10.1016/j.chaos.2017.06.002>) [Q1, SJR 1.04: <https://www.scimagojr.com/journalsearch.php?q=25347&tip=sid>]
17. M.-F. Danca, N. Kuznetsov, G. Chen, Unusual dynamics and hidden attractors of the Rabinovich-Fabrikant system, **Nonlinear Dynamics**, 88(1), **2017**, 791-805 (<http://dx.doi.org/10.1007/s11071-016-3276-1>) [Q1, SJR 1.39: <https://www.scimagojr.com/journalsearch.php?q=21576&tip=sid>]
18. Chen G., Kudryashova E.V., Kuznetsov N.V., Leonov G.A., Dynamics of the Zeraoulia-Sprott map revisited, **International Journal of Bifurcation and Chaos**, 26(7), **2016**, art. num. 1650126 (<http://dx.doi.org/10.1142/S0218127416501261>) [Q1, SJR 0.71: <https://www.scimagojr.com/journalsearch.php?q=12337&tip=sid>]
19. Leonov G.A., Kuznetsov N.V., Korzhemanova N.A., Kusakina D.V., Lyapunov dimension formula for the global attractor of the Lorenz system, **Communications in Nonlinear Science and Numerical Simulation**, 41, **2016**, pp. 84-103 (<http://dx.doi.org/10.1016/j.cnsns.2016.04.032>) [Q1, SJR 1.3: <https://www.scimagojr.com/journalsearch.php?q=25807&tip=sid>]
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23. R.E. Best, N.V. Kuznetsov, G.A. Leonov, M.V. Yuldashev, R.V. Yuldashev, Tutorial on dynamic analysis of the Costas loop, **IFAC Annual Reviews in Control**, 42, **2016**, pp. 27-49 (<http://dx.doi.org/10.1016/j.arcontrol.2016.08.003>) [Q1, SJR 1.71: <https://www.scimagojr.com/journalsearch.php?q=27843&tip=sid>]
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26. Кузнецов Н.В., Лобачев М.Ю., Юлдашев М.В., Юлдашев Р.В., О проблеме Гарднера для систем управления фазовой автоподстройкой частоты, **Доклады Академии наук**, 489(6), 2019, 541-544

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27. Г.А. Леонов, Н.В. Кузнецов, М.В. Юлдашев, Р.В. Юлдашев, Вычисление характеристика фазового детектора для схемы Костаса с квадратурной фазовой манипуляцией, **Доклады академии наук**, 468(6), 2016, 624-629 (10.7868/S0869565216180055) [G.A. Leonov, N.V. Kuznetsov, M.V. Yuldashev, R.V. Yuldashev, Computation of the phase detector characteristic of a QPSK Costas loop, **Doklady Mathematics**, 93(3), 2016, 348–353 (<http://dx.doi.org/10.1134/S1064562416030236>)] [Q2, SJR 0.61: <https://www.scimagojr.com/journalsearch.php?q=25924&tip=sid>]
28. Г.А. Леонов, Н.В. Кузнецов, О подавлении флаттера в модели Келдыша, **Доклады Академии наук**, 482(1), 2018, 33-37 [G.A. Leonov, N.V. Kuznetsov, On Flutter Suppression in the Keldysh Model, **Doklady Physics**, 2018, Vol. 63, No. 9, pp. 366–370 (<https://dx.doi.org/10.1134/S1028335818090021>)] [Q2, SJR 0.43: <https://www.scimagojr.com/journalsearch.php?q=27502&tip=sid>]
29. Г.А. Леонов, Н.В. Кузнецов, Е.П. Соловьева, Математическое моделирование вибраций в турбогенераторах Саяно-Шушенской ГЭС, **Доклады академии наук**, 466(6), 2016, 654-659 [G.A. Leonov, N.V. Kuznetsov, E.P. Solovyeva, Mathematical modeling of vibrations in turbogenerator sets of Sayano-Shushenskaya hydroelectric power station, **Doklady Physics**, 61(2), 2016, 55-60 (<http://dx.doi.org/10.1134/S1028335816020105>)] [Q2, SJR 0.43: <https://www.scimagojr.com/journalsearch.php?q=27502&tip=sid>]
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