

## **Катедра за Теоријску физику и примене**

Прилог уз Извештај о раду 2017/18.

Списак радова (на основу достављених информација):

1. G.S. Djordjevic, Lj. Nesic, & D. Radovancevic, Minisuperspace FLRW *Oscillator, Cosmological Model and Generalized Uncertainty Principle*, Classical and Quantum Gravity, 35 (2018), 195002.
2. M. Milosevic, G.S. Djordjevic & V. Urumov, *Balkan Web of Physics*. in AIP Conference Proceedings (submitted 2018).
3. D.D. Dimitrijevic, N. Bilić, G.S. Djordjevic, M. Milosevic and M. Stojanović, *Tachyon scalar field in a braneworld cosmology*, International Journal of Modern Physics A (accepted 2018).
4. M. Milošević, N. Bilić, D.D. Dimitrijević, G.S. Djordjević and M. Stojanović, *Numerical Calculation of Hubble Hierarchy Parameters and Observational Parameters of Inflation*, in AIP Conference Proceedings (submitted 2018).
5. D.D. Dimitrijevic, M.A. Dimitrijevic, G.S. Djordjevic and M. Milosevic, *On Tachyonic Inflaton with Constraints*, in AIP Conference Proceedings (submitted 2018).
6. D.D. Dimitrijevic, N. Bilić, G.S. Djordjevic, M. Milosevic, *Tachyon scalar field in DBI and RSII cosmological context*, in Proceedings of the 9th MATHEMATICAL PHYSICS MEETING, SFIN XXXI No. A1 Belgrade, 2018 (159-169).
7. M. Milošević, M.A. Pursiainen, P. Jovanović & L.Č. Popović, *The shape of Fe K $\alpha$  line emitted from relativistic accretion disc around AGN black holes*. International Journal of Modern Physics A (accepted 2018).
8. A. Mančić, F. Baronio, Lj. Hadžievski, S. Wabnitz, and A. Maluckov, *Statistics of vector Manakov rogue waves*, Phys. Rev. E 98, 012209 (2018).
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10. N. Milojević and I. Mančev, *Single electron capture in H+N collisions*, 29 Summer School and International Symposium on the Physics of Ionized Gases, 28 August-1. September, 43-46, 2018, Belgrade, Serbia.
11. J. Jeknic-Dugic, I. Petrovic, M. Arsenijevic, M. Dugic, *Dynamical stability of the one-dimensional rigid Brownian rotator: The role of the rotator's spatial size and shape*, J. Phys.: Condens. Matter 30, 195304 (2018)
12. M. Arsenijevic, J. Jeknic-Dugic, M. Dugic, *Kraus operators for a pair of interacting qubits: a case study*. Braz. J. Phys. 48, 242 (2018)
13. M. Arsenijevic, J. Jeknic-Dugic, M. Dugic, *Complete positivity on the subsystems level*, Int. J. Theor. Phys., 57, 3492 (2018)
14. I. Petrović, J. Jeknić-Dugić, *The first and second moments for the quantum Brownian planar rotator in external harmonic classical field*, Facta Universitatis Vol 15, No 2, 2017, pp. 071-079.
15. M. Dugić, J. Jeknić-Dugić, M. Arsenijević, *On the concept of local time*, Facta Universitatis, 2019, in press.
16. J. Jeknić-Dugić, M. Dugić, *On the concept of local time in quantum mechanics*, The Fifth National Conference on Information Theory and Complex Systems – TINKOS 2017, Belgrade, November 9-10, 2017, pp. 7 ISBN: 978-86-80593-61-6.
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Complex Systems – TINKOS 2017, Belgrade, November 9-10, 2017, pp. 8 ISBN: 978-86-80593-61-6.

18. V. Pavlović, M. Šušnjar, K. Petrović, Lj. Stevanović: *Electromagnetically induced transparency in a multilayered spherical quantum dot with hydrogenic impurity*, Opt. Materials 78, 191-200 (2018).
19. Lj. Stevanović, N. Filipović, V. Pavlović: *Electromagnetically induced transparency in degenerate ladder-type system*, Opt. Quant. Electronics 50, 287: 1-12 (2018).
20. Lj. Stevanović, A. Maluckov, N. Filipović, V. Pavlović, *Spatial Solitary like Weak Probe Wave in the Three-Level Lambda-Type Atoms*, BPU, Bulgaria, Sofia, 26-30 August 2018.
21. Ž. Mladenović, S. Gocić, D. Marić, Z. Lj. Petrović, *Influence of space charge density on electron energy distribution function and on composition of atmospheric pressure He/O<sub>2</sub>/air plasmas*, Eur. Phys. J. Plus (2018) **133**: 344, DOI 10.1140/epjp/i2018-12187-6.
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23. L.Radenković and Lj. Nešić, *The physics of powerlifting*, Eur. J. Phys. **39** 034002 (2018).
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25. N. Milojevic and I. Mancev, *Single electron capture into arbitrary states of bare projectiles from multi-electron targets*, Facta Universitatis, 2018, in press.