

СПИСЪК НА ТРУДОВЕТЕ

ЗА ПЪРВИЯ ЕТАП ПО ДОГОВОР ДН 18/1 от 10.12.2017 г.

Тема: Симетрии на фундаменталните закони на Природата

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От тях с импакт-фактор: 10

От тях с импакт-ранг: 11

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Дисертация за НО степен „доктор“ – защитена на 16.09.2019

А. Трудове по Работен пакет 1 „Разширени гравитационни теории и квантова космология“:

[1] E.I. Guendelman, **E. Nissimov and S. Pacheva**, "Wheeler-DeWitt Quantization of Gravity Models of Unified Dark Energy and Dark Matter", Springer Proceedings in Mathematics and Statistics v.255: Quantum Theory and Symmetries with Lie Theory and Its Applications in Physics, vol.2, ed. V. Dobrev, pp.99-114 (Springer, Tokyo, Heidelberg) 2018, SJR 0.161, https://doi.org/10.1007/978-981-13-2179-5_7

[2] E.I. Guendelman, **E. Nissimov and S. Pacheva**, "Quintessence, Unified Dark Energy and Dark Matter, and Confinement/Deconfinement Mechanism", "Ninth Mathematical Physics Meeting", pp.237-252, B. Dragovic et.al. eds., ISBN: 978-86-82441-48-9, (Belgrade Inst. Phys. Press, 2018), <http://arxiv.org/abs/1801.09120>

[3] E.I. Guendelman, **E. Nissimov and S. Pacheva**, "Confinement/Deconfinement and Gravity-Assisted Emergent Higgs Mechanism in Quintessential Cosmological Model", "Jacob Bekenstein Memorial Volume" (World Scientific, 2019), <http://arxiv.org/abs/1804.07925>, <https://doi.org/10.1142/11373>

[4] E.I. Guendelman, **E. Nissimov and S. Pacheva**, "Modified Gravity and Inflaton Assisted Dynamical Generation of Charge Confinement and Electroweak Symmetry Breaking in Cosmology", AIP Conference Proceedings 2075, 090030 (2019), <https://aip.scitation.org/doi/pdf/10.1063/1.5091244> , SJR 0.18

[5] E.I. Guendelman, **E. Nissimov and S. Pacheva**, "Gauss-Bonnet Gravity in D=4 Without Gauss-Bonnet Coupling to Matter -Cosmological Implications", Modern Physics Letters A34 (2019) 1950051, Q2, <https://www.worldscientific.com/doi/10.1142/S0217732319500512>

[6] E.I. Guendelman, **E. Nissimov and S. Pacheva**, "Four-Dimensional Gauss-Bonnet Gravity Without Gauss-Bonnet Coupling to Matter – Spherically Symmetric Solutions, Domain Walls

and Spacetime Singularities", in Proceedings of 2018 Bahamas Advanced Study Institute's Conference (BASIC 2018), Bulgarian Journal of Physics 48 (2021) 087-116, <https://arxiv.org/abs/1811.04487>

[7] D. Benisty, E.I. Guendelman, A. Kaganovich, **E. Nissimov and S. Pacheva**, "Modified Gravity Theories Based on the Non-Canonical Volume-Form Formalism", in Springer Proceedings in Mathematics and Statistics, vol.335, pp.239-252, ed. V Dobrev, Springer (2020), https://link.springer.com/chapter/10.1007/978-981-15-7775-8_15_SJR 0.161

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[9] **D. Staicova**, M. Stoilov "Cosmological solutions from models with unified dark energy and dark matter and with inflaton field", Springer Proceedings in Mathematics and Statistics v.255: Quantum Theory and Symmetries with Lie Theory and Its Applications in Physics, vol.2, ed. V. Dobrev, pp.251-260 (Springer, Tokyo, Heidelberg) 2018, SJR 0.161, DOI: 10.1007/978-981-13-2179-5_19, https://link.springer.com/chapter/10.1007/978-981-13-2179-5_19

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Б. Трудове по Работен пакет 2 „Теория на струните и гравитационно – калибровъчно-полева дуалност“

[12] **R. C. Rashkov**, "Integrable structures in low-dimensional holography and cosmologies", Int. J. Mod. Phys. A 34, 1845008 (2018), Q2; <https://www.worldscientific.com/doi/abs/10.1142/S0217751X18450082>

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[15] Veselin G. Filev, **R. C. Rashkov**, "Critical point in a holographic defect field theory", Arxiv: 1905.06472 ; <https://arxiv.org/abs/1905.06472>

[16] H. Dimov, **S. Mladenov, R. Rashkov** and T. Vetsov, "Higher-Derivative Oscillators in AdS₅ × S₅ T-Dual Penrose Limits", "Quantum Theory and Symmetries with Lie Theory and Its Applications in Physics Volume 1, Springer Proceedings in Mathematics & Statistics 263, V. Dobrev (ed.), Springer (2018), SJR 0.161, https://doi.org/10.1007/978-981-13-2715-5_22

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В. Трудове по Работен пакет 3 „Математически аспекти на фундаменталните симетрии“

[19] P. Furlan and **V.B. Petkova**, “ On some Coulomb gas integrals in higher dimensions”, arXiv:1806.03270, <https://arxiv.org/abs/1806.03270>

[20] I. Kostov, **V.B. Petkova**, D. Serban, „Determinant formula for the octagon form factor in $N = 4$ SYM“, Phys.Rev.Lett. 122, 231601 (2019) , **IF 8.8**, Q1, <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.122.231601>

[21] I. Kostov, **V.B. Petkova**, D. Serban, “The octagon as a determinant”, JHEP 11 (2019) 178, Q1, <https://arxiv.org/abs/1905.11467>

[22] **V.K. Dobrev**, “Multiparameter Quantum Group and Quantum Minkowski Space-Time”, Physics of Particles and Nuclei, 49, No. 5, (2018) 818–822. ISSN 1063-7796, IF=0.786, Q4, <https://link.springer.com/article/10.1134%2FS1063779618050180>

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Г. Дисертация за НО степен „доктор“ – защитена на 16.09.2019, към Работен пакет 1

[31] **K. Marinov**, “*Extended Theories of Gravity and Their Applications for Neutron Stars*”, Ph.D. thesis (2019)