ANEXA 5.1

Universitatea Babeș-Bolyai
Facultatea de Fizică
Departamentul de Fizică Biomoleculară
dr. Tiberiu Csaba Harko

LISTA
lucrărilor ştiinţifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat: Department of Physics, University of Hong Kong, Properties of quark stars, supervisor Prof. K. S. Cheng

B. Cărţi si capitole în cărţi publicate în ultimii 10 anii

1. T. Harko and F. S. N. Lobo, Extensions of f(R) gravity: Curvature-Matter Couplings, and Hybrid Metric Palatini Garvity, Cambridge, Cambridge University Press, 2018

C. Lucrări indexate ISI/BDI publicate în ultimii 10 anii

1. Cipriano, R.~A.~C., Harko, T., Lobo, F.~S.~N., Pinto, M.~A.~S., Rosa, J.~L.\ 2024.\ Gravitationally induced matter creation in scalar f(R,T) gravity, Physics of the Dark Universe 44. doi:10.1016/j.dark.2024.101463
2. Haghani, Z., Harko, T., Shahidi, S.\ 2024.\ The first variation of the matter energy{\textendash}momentum tensor with respect to the metric, and its implications on modified gravity theories.\ Physics of the Dark Universe 44. doi:10.1016/j.dark.2024.101448
3. Oancea, M.~A., Harko, T.\ 2024.\ Weyl geometric effects on the propagation of light in gravitational fields.\ Physical Review D 109. doi:10.1103/PhysRevD.109.064020
4. Craciun, M., Harko, T.\ 2024.\ Testing Weyl geometric gravity with the SPARC galactic rotation curves database.\ Physics of the Dark Universe 43. doi:10.1016/j.dark.2024.101423
5. Ming, L., Liang, S.-D., Zhang, H.-H., Harko, T.\ 2024.\ From the Weyl-Schr{\"o}dinger connection to the accelerating Universe: Extending Einstein's gravity via a length preserving nonmetricity.\ Physical Review D 109. doi:10.1103/PhysRevD.109.024003
6. Bouali, A., Chaudhary, H., Harko, T., Lobo, F.~S.~N., Ouali, T., Pinto, M.~A.~S.\ 2023.\ Observational constraints and cosmological implications of scalar-tensor f(R, T) gravity.\ Monthly Notices of the Royal Astronomical Society 526, 4192–4208. doi:10.1093/mnras/stad2998
7. Mandal, S., Pradhan, S., Sahoo, P.~K., Harko, T.\ 2023.\ Cosmological observational constraints on the power law f(Q) type modified gravity theory.\ European Physical Journal C 83. doi:10.1140/epjc/s10052-023-12339-4

8. Hama, R., Harko, T., Sabau, S.~V.\ 2023.\ Conformal gravitational theories in Barthel-Kropina-type Finslerian geometry, and their cosmological implications.\ European Physical Journal C 83. doi:10.1140/epjc/s10052-023-12146-x
9. Sheikhahmadi, H., Soroushfar, S., Sajadi, S.~N., Harko, T.\ 2023.\ Astrophysical and electromagnetic emissivity properties of black holes surrounded by a quintessence type exotic fluid in the scalar-vector-tensor modified gravity.\ European Physical Journal C 83. doi:10.1140/epjc/s10052-023-11980-3
10. Harko, T.\ 2023.\ Dissipative quintessence and its cosmological implications.\ Physical Review D 107. doi:10.1103/PhysRevD.107.123507
11. Pinto, M.~A.~S., Harko, T., Lobo, F.~S.~N.\ 2023.\ Irreversible Geometrothermodynamics of Open Systems in Modified Gravity.\ Entropy 25. doi:10.3390/e25060944
12. Haghani, Z., Harko, T.\ 2023.\ Compact stellar structures in Weyl geometric gravity.\ Physical Review D 107. doi:10.1103/PhysRevD.107.064068
13. Burikham, P., Harko, T., Pimsamarn, K., Shahidi, S.\ 2023.\ Dark matter as a Weyl geometric effect.\ Physical Review D 107. doi:10.1103/PhysRevD.107.064008
14. Bouali, A., Chaudhary, H., Hama, R., Harko, T., Sabau, S.~V., Mart{\"\i}n, M.~S.\ 2023.\ Cosmological tests of the osculating Barthel-Kropina dark energy model.\ European Physical Journal C 83. doi:10.1140/epjc/s10052-023-11265-9
15. Harko, T., Asadi, K., Moshafi, H., Sheikhahmadi, H.\ 2022.\ Observational constraints on the interacting dark energy - Dark matter (IDM) cosmological models.\ Physics of the Dark Universe 38. doi:10.1016/j.dark.2022.101131
16. Yang, J.-Z., Shahidi, S., Harko, T.\ 2022.\ Black hole solutions in the quadratic Weyl conformal geometric theory of gravity.\ European Physical Journal C 82. doi:10.1140/epjc/s10052-022-11131-0
17. Harko, T., Shahidi, S.\ 2022.\ Palatini formulation of the conformally invariant f (R ,L$_{m}$) gravity theory.\ European Physical Journal C 82. doi:10.1140/epjc/s10052-022-10891-z
18. Pinto, M.~A.~S., Harko, T., Lobo, F.~S.~N.\ 2022.\ Gravitationally induced particle production in scalar-tensor f (R ,T) gravity.\ Physical Review D 106. doi:10.1103/PhysRevD.106.044043
19. Harko, T., Madarassy, E.~J.\ 2022.\ Bose-Einstein Condensate dark matter models in the presence of baryonic matter and random confining potentials.\ European Physical Journal C 82. doi:10.1140/epjc/s10052-022-10344-7
20. Hama, R., Harko, T., Sabau, S.~V.\ 2022.\ Dark energy and accelerating cosmological evolution from osculating Barthel-Kropina geometry.\ European Physical Journal C 82. doi:10.1140/epjc/s10052-022-10318-9

D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

- Reviste

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- Selecție cu maximum 20 lucrări în volume de conferințe

1. da Silva, H.~M.~R., Harko, T., Lobo, F.~S.~N., Rosa, J.~L.\ 2023.\ U (1) local strings in generalized hybrid metric-Palatini gravity.\ The Sixteenth Marcel Grossmann Meeting. On Recent Developments in Theoretical and Experimental General Relativity, Astrophysics, and Relativistic Field Theories, 1820–1834. doi:10.1142/9789811269776_0143

2. Harko, T., Lobo, F.~S.~N., da Silva, H.~M.~R.\ 2023.\ U (1) local strings in hybrid metric-Palatini gravity.\ The Sixteenth Marcel Grossmann Meeting. On Recent Developments in Theoretical and Experimental General Relativity, Astrophysics, and Relativistic Field Theories, 485–498. doi:10.1142/9789811269776_0035

E. Brevete obţinute în întreaga activitate

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Data: 15.05.2024

Semnătura: Harko