

Oliver F. Piattella

LIST OF PUBLICATIONS

Articles published in international scientific journals

1. V. Gorini, A. Y. Kamenshchik, U. Moschella, O. F. Piattella and A. A. Starobinsky, *Gauge-invariant analysis of perturbations in Chaplygin gas unified models of dark matter and dark energy*, JCAP **0802** (2008) 016, arXiv:0711.4242
2. V. Gorini, A. Y. Kamenshchik, U. Moschella, O. F. Piattella and A. A. Starobinsky, *More about the Tolman-Oppenheimer-Volkoff equations for the generalised Chaplygin gas*, Phys. Rev. D **80**, 104038 (2009), arXiv:0909.0866
3. O. F. Piattella, *The extreme limit of the generalised Chaplygin gas*, JCAP **1003** (2010) 012, arXiv:0906.4430
4. O. F. Piattella, D. Bertacca, M. Bruni and D. Pietrobon, *Unified Dark Matter models with fast transition*, JCAP **1001** (2010) 014, arXiv:0911.2664
5. L. Rizzi, S. L. Cacciatori, V. Gorini, A. Y. Kamenshchik and O. F. Piattella, *Dark matter effects in vacuum spacetime*, Phys. Rev. D **82**, 027301 (2010), arXiv:1006.4059
6. L. Rizzi, O. F. Piattella, S. L. Cacciatori and V. Gorini, *The Step-Harmonic potential*, Am. J. Phys. **78**, 8, August 2010, arXiv:0912.3198
7. D. Bertacca, O. F. Piattella, M. Bruni and D. Pietrobon, *Unified Dark Matter scalar field models with fast transition*, JCAP **02** (2011) 018, arXiv:1011.6669
8. F. Belgiorno, S. L. Cacciatori, F. Dalla Piazza and O. F. Piattella, *Quantum loss of angular momentum for BTZ black holes*, J. Phys. A **44** (2011) 025202, arXiv:1007.4439
9. Daniele Bertacca, Alvisè Raccanelli, Oliver F. Piattella, Davide Pietrobon, Nicola Bartolo, Sabino Matarrese and Tommaso Giannantonio, *CMB-Galaxy correlation in Unified Dark Matter Scalar Field Cosmologies*, JCAP **1103** (2011) 039, arXiv:1102.0284
10. Oliver F. Piattella, Júlio C. Fabris and Winfried Zimdahl, *Bulk viscous cosmology with causal transport theory*, JCAP **1105** (2011) 029, arXiv:1103.1328
11. L. Rizzi, O. F. Piattella, S. L. Cacciatori and V. Gorini, *Two variants of the step-harmonic potential*, Revista Brasileira de Ensino de Física, vol. 38, no 2, e2302 (2016), arXiv:1102.2994
12. Oliver F. Piattella and Daniele Bertacca, *Gravitational potential evolution in Unified Dark Matter Scalar Field Cosmologies: an analytical approach*, Modern Physics Letters **A26** (2011) 2277-2286, arXiv:1103.0234

13. J. C. Fabris, T. C. C. Guio, M. Hamani Daouda, O. F. Piattella, *Scalar models for the generalized Chaplygin gas and the structure formation constraints*, *Gravitation and Cosmology* **17** 3 (2011) 259–271, arXiv:1011.0286
14. A. A. Grib, Y. .V. Pavlov, O. F. Piattella, *High energy processes in the vicinity of the Kerr's black hole horizon*, *International Journal of Modern Physics A*, **26** (2011) 22, arXiv:1105.1540
15. J. C. Fabris, M. Hamani Daouda, O. F. Piattella, *Note on the Evolution of the Gravitational Potential in Rastall Scalar Field Theories*, *Phys. Lett.* **B711** (2012) 232-237, arXiv:1109.2096
16. M. J. S. Houndjo and O. F. Piattella, *Reconstructing $f(R, T)$ gravity from holographic dark energy*, *International Journal of Modern Physics D*, **21** (2012) 1250024, arXiv:1111.4275
17. C. E. M. Batista, M. H. Daouda, J. C. Fabris, O. F. Piattella and D. C. Rodrigues, *Rastall Cosmology and the Λ CDM Model*, *Phys. Rev.* **D85** (2012) 084008, arXiv:1112.4141
18. M. J. S. Houndjo, C. E. M. Batista, J. P. Campos and O. F. Piattella, *Finite-time singularities in $f(R, T)$ gravity and the effect of conformal anomaly*, *Can. J. Phys.* **91** (7), 548-553 (2013), arXiv:1203.6084
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20. G. F. Silva, O. F. Piattella, J. C. Fabris, L. Casarini and T. O. Barbosa, *Bouncing solutions in Rastall's theory with a barotropic fluid*, *Grav. Cosmol.* **19** (2013) 156-162, arXiv:1212.6954
21. J. P. Campos, J. C. Fabris, R. Perez, O. F. Piattella and H. Velten, *Does Chaplygin gas have salvation?*, *Eur. Phys. J. C73* (2013) 2357, arXiv:1212.4136
22. O. F. Piattella, D. C. Rodrigues, J. C. Fabris, J. A. de Freitas Pacheco, *Evolution of the phase-space density and the Jeans scale for dark matter derived from the Vlasov-Einstein equation*, *JCAP* **1311** (2013) 002, arXiv:1306.3578
23. J. C. Fabris, O. F. Piattella, I. G. Salako, J. Tossa, H. E. S. Velten, *A note on acoustic black holes in neo-Newtonian theory*, *Mod.Phys.Lett.* **A28** (2013) 1350169, arXiv:1308.1859
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25. J. C. Fabris, J. A. de Freitas Pacheco, O. F. Piattella, *Is the continuous matter creation cosmology an alternative to Λ CDM?*, JCAP 1406 (2014) 038, arXiv:1405.6659
26. L. Casarini, O. F. Piattella, S. Bonometto and M. Mezzetti, *Sample variance in N -body simulations and impact on tomographic shear predictions*, Astrophys.J. 812 (2015) no.1, 16, arXiv:1406.5374
27. O. F. Piattella, D. L. A. Martins and L. Casarini, *Sub-horizon evolution of cold dark matter perturbations through dark matter-dark energy equivalence epoch*, JCAP **1410** (2014) 10, 031, arXiv:1407.4773
28. T. R. P. Caramês, M. H. Daouda, J. C. Fabris, A. M. Oliveira, O. F. Piattella and V. Stokov, *The Brans-Dicke-Rastall theory*, Eur. Phys. J. C **74** (2014) 11, 3145, arXiv:1409.2322
29. D. C. Rodrigues, B. Chauvineau and O. F. Piattella, *Scalar-Tensor gravity with system-dependent potential and its relation with Renormalization Group extended General Relativity*, JCAP **1509** (2015) no.09, 009, arXiv:1504.05119
30. O. F. Piattella, L. Casarini, J. C. Fabris and J. A. d. F. Pacheco, *Dark matter velocity dispersion effects on CMB and matter power spectra*, JCAP **1602** (2016) no.02, 024, arXiv:1507.00982
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34. A. O. F. de Almeida, O. F. Piattella and D. C. Rodrigues, *A method for evaluating models that use galaxy rotation curves to derive the density profiles*, Mon. Not. Roy. Astron. Soc. **462** (2016) 270, arXiv:1605.04269
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37. O. F. Piattella, *On the effect of the cosmological expansion on the gravitational lensing by a point mass*, Universe 2016, 2(4), 25, arXiv:1609.00270
38. K. A. Bronnikov, J. C. Fabris, O. F. Piattella, D. C. Rodrigues and E. C. Santos, *Duality between k-essence and Rastall gravity*, Eur. Phys. J. C **77** (2017) no.6, 409, arXiv:1701.06662
39. O. F. Piattella and L. Giani, *Redshift drift of gravitational lensing*, Phys. Rev. D **95** (2017) no.10, 101301, arXiv:1703.05142
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2. M. H. Daouda, J. C. Fabris and O. F. Piattella, *Scalar models for the unification of the dark sector*, AIP Conf. Proc. 1471 (2012) 57-60, arXiv:1204.2298
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5. J. C. Fabris, O. F. Piattella, D. C. Rodrigues, M. H. Daouda, *Rastall's Cosmology and its Observational Constraints*. Mar 22, 2014. 6 pp. Proceedings of the II CosmoSur conference, Valparaíso, Chile, 27 - 31 May 2013
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10. J. C. Fabris, T. Miranda and O. F. Piattella, *Variations on the Starobinsky Inflationary Model*, J. Phys. Conf. Ser. **798** (2017) no.1, 012092, doi:10.1088/1742-6596/798/1/012092

Books and chapters

1. Oliver F. Piattella, *Cosmology and Unified dark Matter: the Chaplygin gas and beyond*, ISBN 978-3-8443-8842-8, LAP Lambert Academic Publishing GmbH & Co, 2011.
2. Proceedings of the 1st Jose Plinio Baptista School of Cosmology: *Structure formation in an expanding Universe*, 2014, p. 277, J. C. Fabris, O. F. Piattella, D. C. Rodrigues, W. Zimdahl Editors, EDUFES
3. J. C. Fabris, O. F. Piattella, D. C. Rodrigues, H. E. S. Velten and W. Zimdahl, *The Cosmic Microwave Background*, Astrophys. Space Sci. Proc. **45** (2016)
4. D. Wands, O. F. Piattella and L. Casarini, *Physics of the Cosmic Microwave Background Radiation*, Astrophys. Space Sci. Proc. **45** (2016) 3, arXiv:1504.06335
5. O. F. Piattella, *Lecture Notes in Cosmology*, book in preparation and accepted for publication by Springer. A preliminary version can be found on my personal webpage: <http://ofp.cosmo-ufes.org/teaching.html>.