Brief Curriculum Vitae: Francisco S. N. Lobo

1 Personal Data

1. **Name:** Francisco Sabélio Nobrega Lobo

2. **Present situation:**

   – Category: **Principal Researcher** (equivalent to an Associate Professor)
   FCT Researcher (Sep. 2013–)
   Faculdade de Ciências da Universidade de Lisboa
   Instituto de Astrofísica e Ciências do Espaco da Universidade de Lisboa,
   Campo Grande, Ed. C8 1749-016, Lisboa, Portugal

   – **Thematic Line Leader**: "Unveiling the dynamics of the universe" (July 2015–).
   Instituto de Astrofísica e Ciências do Espaco da Universidade de Lisboa.

3. **History:**

   – Associate Professor (permanent position declined) (February 2014)
   Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile

   – Researcher (Jan. 2010–Aug. 2013)
   Centro de Astronomia e Astrofísica da Universidade de Lisboa,
   Campo Grande, Ed. C8 1749-016, Lisboa, Portugal

   – Researcher (March 2009–Dec. 2009)
   Centro de Física Teórica e Computacional Universidade de Lisboa
   Av. Prof. Gama Pinto 2, 1649-003 Lisboa Codex Portugal

   – Researcher (Oct. 2008–Feb. 2009)
   Centro de Astronomia e Astrofísica da Universidade de Lisboa,
   Campo Grande, Ed. C8 1749-016, Lisboa, Portugal

   – Post-Doctoral Researcher (Oct. 2006–Sep. 2008)
   Institute of Cosmology and Gravitation,
   Mercantile House, Portsmouth University,
   Portsmouth PO1 2EG, Britain

   – Post-Doctoral Researcher (Jul. 2005–Sep. 2006)
   Centro de Astronomia e Astrofísica da Universidade de Lisboa,
   Campo Grande, Ed. C8 1749-016, Lisboa, Portugal

   – M.Sc (graduated with A, 1998) and PhD (graduated *summa cum laude*, Jul. 2005) degrees, Science Faculty, University of Lisbon, Portugal.

   – Standard 8 (Form III), Pretoria Boys High School.

   – High School teacher (1994-2013).

4. **E-mail:** fslobo@fc.ul.pt, flobo@cosmo.fis.fc.ul.pt

   Homepage:

   http://rana.oal.ul.pt/∼flobo/

5. **Ongoing/Recent Projects and Grants:**

   – "Gravitación y Campos Cuánticos. Reference: FIS2014-57387-C3-1-P (Portuguese member: Francisco S.N. Lobo; PI: Gonzalo Olmo)

   – "NITheP" (National Institute for Theoretical Physics, South Africa) short term visitor program 2016-2017, (Portuguese member: Francisco S.N. Lobo; Project Coordinators: Peter Dunsby and Alvaro de la Cruz-Dombriz)

   – "i-LINK1019 2015" grant of the Spanish Research Council (CSIC), (Portuguese member: Francisco S.N. Lobo; Project Coordinator: Emilio Elizalde)

   – Cosmological tests of gravitation, EXPL/FIS-AST/1608/2013 (PI: Nelson J. Nunes)

   – "i-LINK0780 2013" grant of the Spanish Research Council (CSIC), with the project "Limits of General Relativity" (Portuguese PI: Francisco S.N. Lobo; Project Coordinator: Gonzalo Olmo)

   – Late-time cosmic acceleration: Dark energy and modified gravity, CERN/FP/123615/2011 (PI: Francisco S.N. Lobo).

   – Cosmology with varying couplings, CERN/FP/123618/2011 (PI: José P. Mimoso).

   – Late-time cosmic acceleration: Dark energy and modified gravity, CERN/FP/109381/2009 (PI: Francisco S.N. Lobo).

   – Late-time cosmic acceleration: Dark energy and modified gravity, CERN/FP/116398/2010 (PI: Francisco S.N. Lobo).

   – Cosmology with coupled components, PTDC/FIS/102742/2008 (PI: José P. Mimoso).

   – The Primordial Universe and dark energy, Programa Pessoa 2010/2011 - Cooperação Portugal/França (Portuguese Coordinator: José P. Mimoso).

6. **Member of the EUCLID Theory Working Group**

7. **Member of the eLISA Consortium:**

   – Astrophysical Black Holes Working Group.

   – Test of Fundamental Laws Working Group.

8. **Research Interests:**

   Cosmology
   Modified theories of gravity
   Dark energy and dark matter models
   Brane Cosmology
   Exact Solutions to the Einstein Field Equations
   Mathematical aspects of General Relativity
   Averaged cosmologies, e.g., swiss-cheese model
   Relativistic stars: gravitational collapse
   Analogue models
   Quantum Inequalities and Quantum Field Theory

9. **Recent student/post-doctoral supervision:**

   – Supervising a PhD student, Francisco Cabral;

   – Co-supervising a PhD student, João Luís Rosa;

– Co-supervising a PhD student, Ismael Ayuso Marazuela;

– Supervising a post-doctoral researcher, Noemi Frusciante;

– Supervising a post-doctoral researcher, Diego Rubiera-Garcia;

– Supervised a post-doctoral researcher, Diego Saez-Gomez;

– Co-supervised a Masters student, Daniel Rapouso;

– Supervised a post-doctoral researcher, Nadiezdha Montelongo Garcia;

– Supervised a Masters student, Miguel Oliveira.

10. **Recent conference organization:**

– LOC of the "13th Iberian Cosmology Meeting (IberiCOS 2018)", 26-28th March 2018, Lisbon, Portugal;

– SOC of the "IA-ON4" Institute of Astrophysics and Space Sciences, 4th internal workshop 30-31 October 2017, Lisboa, Portugal;

– LOC of the "1st CANTATA Cost action workshop Cosmology and Astrophysics Network for Theoretical Advances and Training Actions", 11-12th November 2016, Lisbon, Portugal;

– SOC of the "IA-ON3" Institute of Astrophysics and Space Sciences, 3rd internal workshop, 13-14th October 2016, Porto, Portugal;

– LOC and SOC of the "The Spanish-Portuguese Relativity Meeting 2016", 12th-15th September 2016, Lisbon, Portugal;

– LOC of the "EUCLID Consortium Meeting 2016: Mapping the geometry of the dark universe", 30th May-3rd June 2016, Lisbon, Portugal;

– Scientific Committee of the conference "GR 100 years in Lisbon", Instituto Superior Tecnico, 18-19 December 2015, Lisbon, Portugal;

– Chaired the AT3 parallel session "Alternative Theories" at the 14th Marcel Grossmann Meeting, at the University of Rome "La Sapienza" – Rome, July 12-18, 2015.

2 Recent Teaching

I view teaching as much more than a recitation of past work, but as an active, continuous exchange of information between the lecturer and the class. Thus, instructing the next generation of scientists is one of the most energizing, rewarding, and important experiences of an academic teaching career.

At the University level, in the Department of Physics of the Science Faculty of the University of Lisbon, I have taught the following:

1. MSc course "**Early Universe: Inflation and the Large Scale Structure**" during the years 2015-2016 and 2016-2017.

2. PhD course "**Advanced Topics of the Early Universe: Inflation and the Large Scale Structure**" during the year 2016-2017.

In addition to this, I have taught the theoretical and exercise classes (teórico-práticas) of the course on "**Quantum Mechanics**" in the school years 2013-2014, 2014-2015, and 2015-2016, in the Department of Physics of the Science Faculty of the University of Lisbon.

3 Publications

Research-wise, I have been involved in many mainstream areas of great importance and topicality in modern physics. Several of my publications have received extensive news coverage in the following newspapers and journals: *New York Times*, *International Herald Tribune*, *Scientific American*, *National Geographic* and *New Scientist*.

My impact factor, h, is 49 (NASA ADS) [$h = 50$, Google Scholar].
(m-index is presently 3,0).

My *tori* research impact factor is presently 61.7.
(The total research impact (tori) quantifies, for an individual, the total amount of scholarly work that others have devoted to his/her work, measured in the volume of research papers. It is extremely useful for interdisciplinary comparisons.)

To the present date, I have 2 books [Springer (2017) and Cambridge University Press (to appear in 2018)], 133 articles published in high-impact international research journals (including 60 articles published in Physical Review D; 17 in Classical and Quantum Gravity; and 10 in Journal of Cosmology and Astroparticle Physics), 3 articles under revision, with over 7400 citations (3 papers with 250+, 11 papers with 100+ and 35 with 50+ citations); 9 published review articles; 12 articles published as book sections; given over 50 presentations in international conferences (including 7 plenary sessions and 14 invited talks), with the majority published in the proceedings.

3.1 Books

1. **Wormholes, Warp Drives and Energy Conditions**
   F. S. N. Lobo (Ed. & coauthor),
   Springer Int. Publishing (2017)
   doi:10.1007/978-3-319-55182-1.

2. **Extensions of $f(R)$ gravity: Curvature-matter couplings and hybrid metric-Palatini theory**
   T. Harko and F. S. N. Lobo,
   Cambridge University Press (to appear in mid-2018)

3.2 Articles in Refereed Research Journals

1. **"Palatini wormholes and energy conditions from the prism of General Relativity"**
   C. Bejarano, F. S. N. Lobo, G. J. Olmo and D. Rubiera-Garcia.
   arXiv:1607.01259 [gr-qc]
   DOI:10.1140/epjc/s10052-017-5353-0
   Eur. Phys. J. C **77**, no. 11, 776 (2017)

2. **"A Review on the Cosmology of the de Sitter Horndeski Models"**
   N. J. Nunes, P. Martn-Moruno and F. S. N. Lobo.
   arXiv:1704.05376 [gr-qc]

DOI:10.3390/universe3020033
Universe **3**, no. 2, 33 (2017)

3. **"Electrodynamics and spacetime geometry: Astrophysical applications"**
F. Cabral and F. S. N. Lobo.
arXiv:1603.08180 [gr-qc]
DOI:10.1140/epjp/i2017-11618-2
Eur. Phys. J. Plus **132**, no. 7, 304 (2017)

4. **"Cosmological Solutions in generalized hybrid metric-Palatini gravity"**
J. L. Rosa, S. Carloni, J. P. d. S. e. Lemos and F. S. N. Lobo.
arXiv:1703.03335 [gr-qc]
DOI:10.1103/PhysRevD.95.124035
Phys. Rev. D **95**, no. 12, 124035 (2017)

5. **"Crossing SNe Ia and BAO observational constraints with local ones in hybrid metric-Palatini gravity"**
I. Leanizbarrutia, F. S. N. Lobo and D. Saez-Gomez.
arXiv:1701.08980 [gr-qc]
DOI:10.1103/PhysRevD.95.084046
Phys. Rev. D **95**, no. 8, 084046 (2017)

6. **"Gravitational waves and electrodynamics: New perspectives"**
F. Cabral and F. S. N. Lobo.
arXiv:1603.08157 [gr-qc]
DOI 10.1140/epjc/s10052-017-4791-z
Eur. Phys. J. C **77**, 237 (2017)

7. **"Evolution of spherical domain walls in solitonic symmetron models"**
M. Peyravi, N. Riazi and F. S. N. Lobo.
arXiv:1606.05269 [gr-qc]
DOI:10.1103/PhysRevD.95.064047
Phys. Rev. D **95**, 064047 (2017)

8. **"Hybrid metric-Palatini stars"**
B. Danila, T. Harko, F. S. N. Lobo and M. K. Mak.
arXiv:1608.02783 [gr-qc]
DOI:10.1103/PhysRevD.95.044031
Phys. Rev. D **95**, 044031 (2017)

9. **"Cosmological models in modified gravity theories with extended nonminimal derivative couplings"**
T. Harko, F. S. N. Lobo, E. N. Saridakis and M. Tsoukalas.
arXiv:1609.01503 [gr-qc]
DOI:10.1103/PhysRevD.95.044019
Phys. Rev. D **95**, 044019 (2017)

10. **"Electrodynamics and spacetime geometry: Foundations"**
F. Cabral and F. S. N. Lobo.
arXiv:1602.01492 [gr-qc]
DOI:10.1007/s10701-016-0051-6
Found. Phys. **47**, 208 (2017)

11. **"Unveiling the Dynamics of the Universe"**
P. Avelino *et al.*.
arXiv:1607.02979 [astro-ph.CO]
DOI:10.3390/sym8080070
Symmetry **8**, 70 (2016)

12. **"Constraining $f(T, \mathcal{T})$ gravity models using type Ia supernovae"**
D. Saez-Gomez, C. S. Carvalho, F. S. N. Lobo and I. Tereno.
arXiv:1603.09670 [gr-qc]
DOI:10.1103/PhysRevD.94.024034
Phys. Rev. D **94**, 024034 (2016)

13. **"Cosmology with higher-derivative matter fields"**
T. Harko, F. S. N. Lobo and E. N. Saridakis.
arXiv:1405.7019 [gr-qc]
DOI:10.1142/S0219887816501024
Int. J. Geom. Meth. Mod. Phys. **13**, 1650102 (2016)

14. **"From the Flamm-Einstein-Rosen bridge to the modern renaissance of traversable wormholes"**
F. S. N. Lobo.
arXiv:1604.02082 [gr-qc]
10.1142/S0218271816300172
Int. J. Mod. Phys. D **25**, 1630017 (2016)

15. **"Novel third-order Lovelock wormhole solutions"**
M. R. Mehdizadeh and F. S. N. Lobo.
arXiv:1604.02913 [gr-qc]
10.1103/PhysRevD.93.124014
Phys. Rev. D **93**, 124014 (2016)

16. **"Soliton models for thick branes"**
M. Peyravi, N. Riazi and F. S. N. Lobo.
arXiv:1504.04603 [gr-qc]
10.1140/epjc/s10052-016-4094-9
Eur. Phys. J. C **76**, no. 5, 247 (2016)

17. **"Comment on "Searching for Topological Defect Dark Matter via Nongravitational Signatures" "**
P. P. Avelino, L. Sousa and F. S. N. Lobo.
arXiv:1506.06028 [astro-ph.CO]
10.1103/PhysRevLett.116.169001
Phys. Rev. Lett. **116**, 169001 (2016)

18. **"Dynamical system analysis for nonminimal torsion-matter coupled gravity"**
S. Carloni, F. S. N. Lobo, G. Otalora and E. N. Saridakis.
arXiv:1512.06996 [gr-qc]
10.1103/PhysRevD.93.024034
Phys. Rev. D **93**, 024034 (2016)

19. **"Traversable wormholes satisfying the weak energy condition in third-order Lovelock gravity"**
M. K. Zangeneh, F. S. N. Lobo and M. H. Dehghani.
arXiv:1510.07089 [gr-qc]
10.1103/PhysRevD.92.124049
Phys. Rev. D **92**, 124049 (2015)

20. **"Wormhole geometries in Eddington-inspired Born-Infeld gravity"**
T. Harko, F. S. N. Lobo, M. K. Mak and S. V. Sushkov.
arXiv:1307.1883 [gr-qc]
10.1142/S0217732315501904
Mod. Phys. Lett. A **30**, No. 35, 1550190 (2015)

21. **"A dynamical system analysis of hybrid metric-Palatini cosmologies"**
S. Carloni, T. Koivisto and F. S. N. Lobo.
arXiv:1507.04306 [gr-qc]
10.1103/PhysRevD.92.064035
Phys. Rev. D **92**, 064035 (2015)

22. **"Gravitational, lensing, and stability properties of Bose-Einstein condensate dark matter halos"**
T. Harko and F. S. N. Lobo.
arXiv:1505.00944 [gr-qc]
10.1103/PhysRevD.92.043011
Phys. Rev. D **92**, 043011 (2015)

23. **"Gravitational induced particle production through a nonminimal curvature-matter coupling"**
T. Harko, F. S. N. Lobo, J. P. Mimoso and D. Pavn.
arXiv:1508.02511 [gr-qc]
10.1140/epjc/s10052-015-3620-5
Eur. Phys. J. C **75**, no. 8, 386 (2015)

24. **"Hybrid metric-Palatini gravity"**
S. Capozziello, T. Harko, T. S. Koivisto, F. S. N. Lobo and G. J. Olmo.
arXiv:1508.04641 [gr-qc]
10.3390/universe1020199
Universe, 1 (2), 199-238 (2015)

25. **"Generalized $f(R, \phi, X)$ gravity and the late-time cosmic acceleration"**
S. B. Beltran, C. G. Boehmer, F. S. N. Lobo and D. Saez-Gomez.
arXiv:1506.07728 [gr-qc]
10.3390/universe1020186
Universe, 1 (2), 186-198 (2015)

26. **"Higher-dimensional thin-shell wormholes in third-order Lovelock gravity"**
M. R. Mehdizadeh, M. K. Zangeneh and F. S. N. Lobo.
arXiv:1506.03427 [gr-qc]
10.1103/PhysRevD.92.044022
Phys. Rev. D **92**, 044022 (2015)

27. **"Generalized energy conditions in Extended Theories of Gravity"**
S. Capozziello, F. S. N. Lobo and J. P. Mimoso.
arXiv:1407.7293 [gr-qc]
10.1103/PhysRevD.91.124019
Phys. Rev. D **91**, 124019 (2015)

28. **"Crystal clear lessons on the microstructure of spacetime and modified gravity"**
F. S. N. Lobo, G. J. Olmo and D. Rubiera-Garcia.
arXiv:1412.4499 [hep-th]
10.1103/PhysRevD.91.124001
Phys. Rev. D **91**, no. 12, 124001 (2015)

29. **"Attracted to de Sitter: cosmology of the linear Horndeski models"**
P. Martin-Moruno, N. J. Nunes and F. S. N. Lobo.
arXiv:1502.05878 [gr-qc]
10.1088/1475-7516/2015/05/033
JCAP **1505**, no. 05, 033 (2015)

30. **"Horndeski theories self-tuning to a de Sitter vacuum"**
P. Martin-Moruno, N. J. Nunes and F. S. N. Lobo.
arXiv:1502.03236 [gr-qc]
10.1103/PhysRevD.91.084029
Phys. Rev. D **91**, 084029 (2015)

31. **"Einstein-Gauss-Bonnet traversable wormholes satisfying the weak energy condition"**
M. R. Mehdizadeh, M. K. Zangeneh and F. S. N. Lobo.
arXiv:1501.04773 [gr-qc]
10.1103/PhysRevD.91.084004
Phys. Rev. D **91**, 084004 (2015)

32. **"Invariant solutions and Noether symmetries in Hybrid Gravity"**
A. Borowiec, S. Capozziello, M. De Laurentis, F. S. N. Lobo, A. Paliathanasis, M. Paolella and A. Wojnar.
arXiv:1407.4313 [gr-qc]
10.1103/PhysRevD.91.023517
Phys. Rev. D **91**, 023517 (2015)

33. **"Wormhole geometries supported by quark matter at ultra-high densities"**
T. Harko, F. S. N. Lobo and M. K. Mak.
arXiv:1403.0771 [gr-qc]
10.1142/S0218271815500066
Int. J. Mod. Phys. D **24**, 1550006 (2015)

34. **"$f(T, \mathcal{T})$ gravity and cosmology"**
T. Harko, F. S. N. Lobo, G. Otalora and E. N. Saridakis.
arXiv:1405.0519 [gr-qc]
10.1088/1475-7516/2014/12/021
JCAP **12**, 021 (2014)

35. **"A class of exact solutions of the Linard type ordinary non-linear differential equation"**
T. Harko, F. S. N. Lobo, M. K. Mak.
arXiv:1302.0836 [math-ph]
10.1007/s10665-014-9696-3
Journal of Engineering Mathematics 89:193-205 (2014)

36. **"Wormholes minimally violating the null energy condition"**
M. Bouhmadi-Lopez, F. S. N. Lobo and P. Martin-Moruno.
arXiv:1407.7758 [gr-qc]
10.1088/1475-7516/2014/11/007
JCAP **1411**, 007 (2014)

37. **"Bianchi type I cosmological models in Eddington-inspired Born-Infeld gravity"**
T. Harko, F. S. N. Lobo and M. K. Mak.
arXiv:1410.5213 [gr-qc]
10.3390/galaxies2040496
Galaxies 2 (2014) 4, 496-519

38. **"Higher-dimensional evolving wormholes satisfying the null energy condition"**
M. K. Zangeneh, F. S. N. Lobo and N. Riazi.
arXiv:1406.5703 [gr-qc]
10.1103/PhysRevD.90.024072
Phys. Rev. D **90**, 024072 (2014)

39. **"Generalized curvature-matter couplings in modified gravity"**
T. Harko and F. S. N. Lobo.
arXiv:1407.2013 [gr-qc]
10.3390/galaxies2030410
Galaxies 2 (2014) 3, 410-465

40. **"Dynamical generation of wormholes with charged fluids in quadratic Palatini gravity"**
F. S. N. Lobo, J. Martinez-Asencio, G. J. Olmo and D. Rubiera-Garcia.
arXiv:1403.0105 [hep-th]
10.1103/PhysRevD.90.024033
Phys. Rev. D **90**, 024033 (2014)

41. **"Non-minimal torsion-matter coupling extension of $f(T)$ gravity"**
T. Harko, F. S. N. Lobo, G. Otalora and E. N. Saridakis.
10.1103/PhysRevD.89.124036
Physical Review D **89**, 124036 (2014)
arXiv:1404.6212 [gr-qc]

42. **"Microscopic wormholes and the geometry of entanglement"**
F. S. N. Lobo, G. J. Olmo and D. Rubiera-Garcia.
10.1140/epjc/s10052-014-2924-1
Eur. Phys. J. C **74**, 2924 (2014)
arXiv:1402.5099 [hep-th]

43. **"A Riccati equation based approach to isotropic scalar field cosmologies"**
T. Harko, F. S. N. Lobo and M. K. Mak.
10.1142/S0218271814500631
Int. J. Mod. Phys. D **23**, 1450063 (2014)
arXiv:1402.4363 [gr-qc]

44. **"Gravity's Rainbow induces Topology Change"**
R. Garattini and F. S. N. Lobo.
10.1140/epjc/s10052-014-2884-5
Eur. Phys. J. C **74**, 2884 (2014)
arXiv:1303.5566 [gr-qc]

45. **"Exact analytical solutions of the Susceptible-Infected-Recovered (SIR) epidemic model and of the SIR model with equal death and birth rates"**
T. Harko, F. S. N. Lobo and M. K. Mak.
arXiv:1403.2160 [q-bio.PE]
10.1016/j.amc.2014.03.030
Applied Mathematics and Computation **236**, 184-194 (2014)

46. **"Dark matter density profile and galactic metric in Eddington-inspired Born-Infeld gravity"**
T. Harko, F. S. N. Lobo, M. K. Mak and S. V. Sushkov.
arXiv:1305.0820 [gr-qc]
10.1142/S0217732314500497
Mod. Phys. Lett. A **29**, no. 9, 1450049 (2014)

47. **"Planck scale physics and topology change through an exactly solvable model"**
F. S. N. Lobo, J. Martinez-Asencio, G. J. Olmo and D. Rubiera-Garcia.
arXiv:1311.5712 [hep-th]
10.1016/j.physletb.2014.02.038
Phys. Lett. B **731**, 163 (2014)

48. **"Arbitrary scalar field and quintessence cosmological models"**
T. Harko, F. S. N. Lobo and M. K. Mak.
arXiv:1310.7167 [gr-qc]
10.1140/epjc/s10052-014-2784-8
Eur. Phys. J. C **74**, 2784 (2014)

49. **"The Cauchy problem in hybrid metric-Palatini f(X)-gravity"**
S. Capozziello, T. Harko, F. S. N. Lobo, G. J. Olmo and S. Vignolo.
arXiv:1312.1320 [gr-qc]
10.1142/S021988781450042X
Int. J. Geom. Meth. Mod. Phys. **11**, 1450042 (2014)

50. **"Energy conditions in modified gravity"**
S. Capozziello, F. S. N. Lobo and J. P. Mimoso.
arXiv:1312.0784 [gr-qc]
10.1016/j.physletb.2014.01.066
Phys. Lett. B **730**, 280 (2014)

51. **"Analytical solutions of the Riccati equation with coefficients satisfying integral or differential conditions with arbitrary functions"**
T. Harko, F. S. N. Lobo and M. Mak.
arXiv:1311.1150 [math.CA]
Universal Journal of Applied Mathematics 2 (2014) 109-118

52. **"Linearized stability analysis of gravastars in noncommutative geometry"**
F. S. N. Lobo and R. Garattini.
arXiv:1004.2520 [gr-qc]
10.1007/JHEP12(2013)065
JHEP **1312**, 065 (2013)

53. **"Einstein static Universe in hybrid metric-Palatini gravity"**
C. G. Boehmer, F. S. N. Lobo and N. Tamanini.
arXiv:1305.0025 [gr-qc]
10.1103/PhysRevD.88.104019
Phys. Rev. D **88**, 104019 (2013),

54. **"Galactic rotation curves in hybrid metric-Palatini gravity"**
S. Capozziello, T. Harko, T. S. Koivisto, F. S. N. Lobo and G. J. Olmo.
arXiv:1307.0752 [gr-qc]
10.1016/j.astropartphys.2013.09.005
Astroparticle Physics **50-52C**, 65 (2013)

55. **"A Chiellini type integrability condition for the generalized first kind Abel differential equation"**
T. Harko, F. S. N. Lobo and M. Mak.
arXiv:1310.1508 [nlin.SI]
Universal Journal of Applied Mathematics 1 (2013) 101-104

56. **"Hybrid modified gravity unifying local tests, galactic dynamics and late-time cosmic acceleration"**
S. Capozziello, T. Harko, F. S. N. Lobo and G. J. Olmo.
arXiv:1305.3756 [gr-qc]
10.1142/S0218271813420066
Int. J. Mod. Phys. D **22**, 1342006 (2013)
Received an Honorable Mention in the Gravity Research Foundation Essay Contest 2013

57. **"Structure of neutron, quark and exotic stars in Eddington-inspired Born-Infeld gravity"**
T. Harko, F. S. N. Lobo, M. K. Mak and S. V. Sushkov.
arXiv:1305.6770 [gr-qc]
10.1103/PhysRevD.88.044032
Phys. Rev. D **88**, 044032 (2013)

58. **"Further matters in space-time geometry: $f(R,T,R_{\mu\nu}T^{\mu\nu})$ gravity"**
Z. Haghani, T. Harko, F. S. N. Lobo, H. R. Sepangi and S. Shahidi.
arXiv:1304.5957 [gr-qc]
10.1103/PhysRevD.88.044023
Phys. Rev. D **88**, 044023 (2013)

59. **"Integrability cases for the anharmonic oscillator equation"**
T. Harko, F. S. N. Lobo and M. Mak.
arXiv:1304.1468 [math-ph]
Journal of Pure and Applied Mathematics: Advances and Applications 10 (1) (2013) 115-129

60. **"Cosmological anisotropy from non-comoving dark matter and dark energy"**
T. Harko and F. S. N. Lobo.
arXiv:1304.0757 [gr-qc]
10.1088/1475-7516/2013/07/036
JCAP **1307**, 036 (2013)

61. **"The virial theorem and the dark matter problem in hybrid metric-Palatini gravity"**
S. Capozziello, T. Harko, T. S. Koivisto, F. S. N. Lobo and G. J. Olmo.
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62. **"Semiclassical geons as solitonic black hole remnants"**
F. S. N. Lobo, G. J. Olmo and D. Rubiera-Garcia.
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JCAP **1307**, 011 (2013)

63. **"New asymptotically flat phantom wormhole solutions"**
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Phys. Rev. D **87**, 084030 (2013)

64. **"Cosmology of hybrid metric-Palatini f(X)-gravity"**
S. Capozziello, T. Harko, T. S. Koivisto, F. S. N. Lobo and G. J. Olmo.
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JCAP **1304**, 011 (2013)

65. **"Gravitationally modified wormholes without exotic matter"**
T. Harko, F. S. N. Lobo, M. K. Mak and S. V. Sushkov.
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66. **"Irreversible thermodynamic description of interacting dark energy-dark matter cosmological models"**
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Phys. Rev. D **87**, 044018 (2013)

67. **"Extended $f(R, L_m)$ gravity with generalized scalar field and kinetic term dependences"**
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70. **"Generalized dark gravity"**
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P. Martin Moruno, N. Montelongo Garcia, F. S. N. Lobo and M. Visser.
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75. **"Wormhole geometries in modified teleparralel gravity and the energy conditions"**
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78. **"Exact solutions of Brans-Dicke wormholes in the presence of matter"**
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89. **"Wormhole geometries supported by a nonminimal curvature-matter coupling"**
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90. **"Possibility of hyperbolic tunneling"**
F. S. N. Lobo and J. P. Mimoso.
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91. **"Classical tests of general relativity in brane world models"**
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93. **"General class of vacuum Brans-Dicke wormholes"**
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95. **"Can accretion disk properties distinguish gravastars from black holes?"**
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101. **"Exact solutions of f(R) gravity coupled to nonlinear electrodynamics"**
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103. **"Electromagnetic signatures of thin accretion disks in wormhole geometries"**
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arXiv:0808.3306 [gr-qc]
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104. **"Non-minimum coupling of perfect fluids to curvature"**
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105. **"Quark-Hadron Phase Transitions in Brane-World Cosmologies"**
G. De Risi, T. Harko, F. S. N. Lobo and C. S. J. Pun.
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106. **"General class of wormhole geometries in conformal Weyl gravity"**
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107. **"Plane symmetric thin-shell wormholes: Solutions and stability"**
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117. **"Self sustained phantom wormholes in semi-classical gravity"**
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118. **"A General class of braneworld wormholes"**
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121. **"Evolving wormhole geometries within nonlinear electrodynamics"**
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122. **"Non-existence of static, spherically symmetric and stationary, axisymmetric traversable wormholes coupled to nonlinear electrodynamics"**
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123. **"Chaplygin traversable wormholes"**
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128. **"Energy conditions, traversable wormholes and dust shells"**
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129. **"Surface stresses on a thin shell surrounding a traversable wormhole"**
F. S. N. Lobo.
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130. **"Fundamental limitations on 'warp drive' spacetimes"**
F. S. N. Lobo and M. Visser.
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131. **"Plane symmetric traversable wormholes in an Anti-de Sitter background"**
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132. **"Linearized stability analysis of thin shell wormholes with a cosmological constant"**
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133. **"Morris-Thorne wormholes with a cosmological constant"**
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3.3 Articles in Research Journals – Under Review

1. **"Gravitational waves in theories with a non-minimal curvature-matter coupling"**
   O. Bertolami, C. Gomes and F. S. N. Lobo.
   arXiv:1706.06826 [gr-qc]

3.4 Book Sections

1. **"Introduction: Wormholes, Warp Drives and Energy Conditions"**
   F. S. N. Lobo.
   DOI:10.1007/978-3-319-55182-1_1
   Fundam. Theor. Phys. **189**, 1 (2017).

2. **"Warp Drive Basics"**
   M. Alcubierre and F. S. N. Lobo.
   DOI:10.1007/978-3-319-55182-1_11
   Fundam. Theor. Phys. **189**, 257 (2017).

3. **"Self-Sustained Traversable Wormholes"**
   R. Garattini and F. S. N. Lobo.
   DOI:10.1007/978-3-319-55182-1_6
   Fundam. Theor. Phys. **189**, 111 (2017).

4. **"Astrophysical Signatures of Thin Accretion Disks in Wormhole Spacetimes"**
   T. Harko, Z. Kovcs and F. S. N. Lobo.
   DOI:10.1007/978-3-319-55182-1_4
   Fundam. Theor. Phys. **189**, 63 (2017).

5. **"Wormhole Basics"**
   F. S. N. Lobo.
   DOI:10.1007/978-3-319-55182-1_2
   Fundam. Theor. Phys. **189**, 11 (2017).

6. **"Closed timelike curves and causality violation"**
   F. S. N. Lobo
   arXiv:1008.1127 [gr-qc]
   Invited chapter to appear in an edited collection "Classical and Quantum Gravity: Theory, Analysis and Applications"

7. **"Non-minimal curvature-matter couplings in modified gravity"**
   O. Bertolami, T. Harko, F. S. N. Lobo and J. Paramos
   Invited chapter to appear in an edited collection anniversary volume 'The Problems of Modern Cosmology' on occasion of the 50th birthday of Prof. S. D. Odintsov [arXiv:0811.2876 [gr-qc]]

8. **"The dark side of gravity: Modified theories of gravity"**
   F. S. N. Lobo
   Invited chapter to appear in an edited collection 'Dark Energy–Current Advances and Ideas', Research Signpost Publishers [arXiv:0807.1640 [gr-qc]]

9. **"Exotic solutions in General Relativity: Traversable wormholes and 'warp drive' spacetimes"**
   F. S. N. Lobo
   Invited chapter to appear in an edited collection 'Classical and Quantum Gravity Research Progress', Nova Science Publishers [arXiv:0710.4474 [gr-qc]]

10. **"Nature of time and causality in Physics"**
    F. S. N. Lobo
    To appear as a book chapter in 'Psychology of Time', Elsevier Publishers, ed. Simon Grondin [arXiv:0710.0428 [gr-qc]]

11. **"Time, closed timelike curves and causality"**
    F. Lobo and P. Crawford
    NATO Sci. Ser. II **95**, 289 (2003) [arXiv:gr-qc/0206078]

12. **"Weak energy condition violation and superluminal travel"**
    F. Lobo and P. Crawford
    Lect. Notes Phys. **617**, 277 (2003) [arXiv:gr-qc/0204038]

3.5 Selected Conference Proceedings

1. **"A Review on the Cosmology of the de Sitter Horndeski Models"**
   N. J. Nunes, P. Martín-Moruno and F. S. N. Lobo.
   arXiv:1704.05376 [gr-qc]
   DOI:10.3390/universe3020033
   Universe **3**, no. 2, 33 (2017)
   Proceedings published in "Universe", Special Issue "Varying Constants and Fundamental Cosmology" for the VARCOSMOFUN16 meeting in Szczecin, Poland, 12-17 September, 2016

2. **"From the Flamm-Einstein-Rosen bridge to the modern renaissance of traversable wormholes"**
   F. S. N. Lobo.
   arXiv:1604.02082 [gr-qc]
   Int. J. Mod. Phys. D **25**, 1630017 (2016)
   Rapporteur contribution to the proceedings of the "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza", Rome, July 12-18, 2015

3. **"A novel approach to thin-shell wormholes and applications"**
   F. S. N. Lobo, M. Bouhmadi-Lpez, P. Martn-Moruno, N. Montelongo-Garca and M. Visser.
   arXiv:1512.08474 [gr-qc]
   Contribution to the proceedings of the "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza", Rome, July 12-18, 2015, based on an invited talk

4. **"Novel stability approach of thin-shell gravastars"**
   F. S. N. Lobo, P. Martn-Moruno, N. Montelongo-Garca and M. Visser.
   arXiv:1512.07659 [gr-qc]
   Contribution to the proceedings of the "The Fourteenth Marcel Grossmann Meeting on

General Relativity", University of Rome "La Sapienza", Rome, July 12-18, 2015, based on an invited talk

5. **"Gravity's Rainbow and Traversable Wormholes"**
   R. Garattini and F. S. N. Lobo.
   arXiv:1512.04470 [physics.gen-ph]
   Contribution to the proceedings of the "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza", Rome, July 12-18, 2015

6. **"Cosmology of the de Sitter Horndeski models"**
   N. J. Nunes, P. Martin-Moruno and F. S. N. Lobo.
   arXiv:1511.00655 [gr-qc]
   Contribution to the proceedings of the "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza", Rome, July 12-18, 2015

7. **"Accelerating Horndeski cosmologies screening the vacuum energy"**
   P. Martin-Moruno, N. J. Nunes and F. S. N. Lobo.
   arXiv:1509.06159 [gr-qc]
   Contribution to the proceedings of the "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza", Rome, July 12-18, 2015

8. **"Thick brane solitons breaking Z_2 symmetry"**
   M. Peyravi, N. Riazi and F. S. N. Lobo.
   arXiv:1509.04577 [gr-qc]
   Contribution to the proceedings of the "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza", Rome, July 12-18, 2015

9. **"Irreversible matter creation processes through a nonminimal curvature-matter coupling"**
   F. S. N. Lobo, T. Harko, J. P. Mimoso and D. Pavn.
   arXiv:1508.03069 [gr-qc]
   Contribution to the proceedings of the "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza", Rome, July 12-18, 2015, based on an invited talk

10. **"Extended Theories of Gravity with Generalized Energy Conditions"**
    J. P. Mimoso, F. S. N. Lobo and S. Capozziello.
    arXiv:1412.6670 [gr-qc]
    10.1088/1742-6596/600/1/012047
    J. Phys. Conf. Ser. **600**, no. 1, 012047 (2015)
    Prepared for the proceedings of the Spanish Relativity meeting (ERE2014), "Spanish Relativity Meeting: Almost 100 years after Einstein Revolution". 1-5 Sep 2014, Valencia, Spain

11. **"Beyond Einstein's General Relativity"**
    F. S. N. Lobo.
    arXiv:1412.0867 [gr-qc]
    10.1088/1742-6596/600/1/012006
    J. Phys. Conf. Ser. **600**, no. 1, 012006 (2015)

Prepared for the proceedings of the Spanish Relativity meeting (ERE2014), "Spanish Relativity Meeting: Almost 100 years after Einstein Revolution". 1-5 Sep 2014, Valencia, Spain

12. **"Quadratic Palatini gravity and stable black hole remnants"**
D. Rubiera-Garcia, G. J. Olmo and F. S. N. Lobo.
arXiv:1311.6487 [hep-th]
10.1007/978-3-319-20046-0 34
Springer Proc. Phys. **170**, 283 (2016)

13. **"Time machines and traversable wormholes in modified theories of gravity"**
F. S. N. Lobo.
arXiv:1212.1006 [gr-qc]
10.1051/epjconf/20135801006
EPJ Web Conf. **58**, 01006 (2013)
Contribution to the proceedings of The Time Machine Factory, Turin, Italy, 14-20 October, 2012

14. **"Wormhole geometries in modified gravity"**
F. S. N. Lobo.
arXiv:1112.6333 [gr-qc]
10.1063/1.4734456
AIP Conf. Proc. **1458**, 447 (2011)
Prepared for the proceedings of the Spanish Relativity meeting (ERE2011), Madrid, Spain, 29Aug-2Sep 2011

15. **"The Variation of G in a negatively curved space-time"**
J. P. Mimoso and F. S. N. Lobo.
arXiv:1101.4405 [gr-qc]
10.1007/978-3-642-19397-2 4
Astrophys. Space Sci. Proc. , 25 (2011)
Contribution to the Joint European and National Astronomy Meeting (JENAM) 2010; based on a talk given by JPM in the "From Varying Couplings to Fundamental Physics" Symposium

16. **"f(G) modified gravity and the energy conditions"**
N. Montelongo Garcia, F. S. N. Lobo, J. P. Mimoso and T. Harko.
arXiv:1012.0953 [gr-qc]
10.1088/1742-6596/314/1/012056
J. Phys. Conf. Ser. **314**, 012056 (2011)
Prepared for the proceedings of the Spanish Relativity meeting (ERE2010), Granada, Spain, 6-10 Sep 2010

17. **"Late-time cosmic acceleration: Dark gravity"**
F. S. N. Lobo.
arXiv:1011.6176 [gr-qc]
10.1088/1742-6596/314/1/012060
J. Phys. Conf. Ser. **314**, 012060 (2011)
Prepared for the proceedings of the Spanish Relativity meeting (ERE2010), Granada, Spain, 6-10 Sep 2010

18. **"An anti-Schwarzshild solution: wormholes and scalar-tensor solutions"**
J. P. Mimoso and F. S. N. Lobo.
arXiv:1001.2643 [gr-qc]
10.1088/1742-6596/229/1/012078
J. Phys. Conf. Ser. **229**, 012078 (2010)

19. **"Stability of the Einstein static universe in modified theories of gravity"**
C. G. Boehmer, L. Hollenstein, F. S. N. Lobo and S. S. Seahra.
arXiv:1001.1266 [gr-qc]
10.1142/9789814374552 0379
In *Paris 2009, The Twelfth Marcel Grossmann Meeting* 1977-1979

20. **"Dynamic wormhole spacetimes coupled to nonlinear electrodynamics"**
A. V. B. Arellano and F. S. N. Lobo.
gr-qc/0612083
10.1142/9789812834300 0361
Contributed to 11th Marcel Grossmann Meeting on Recent Developments in Theoretical and Experimental General Relativity, Gravitation, and Relativistic Field Theories, Berlin, Germany, 23-29 Jul 2006

21. **"Stable dark energy stars: An alternative to black holes?"**
F. S. N. Lobo.
gr-qc/0612030
10.1142/9789812834300 0184
To appear in the proceedings of 11th Marcel Grossmann Meeting on Recent Developments in Theoretical and Experimental General Relativity, Gravitation, and Relativistic Field Theories, Berlin, Germany, 23-29 Jul 2006

22. **"Traversable wormholes supported by cosmic accelerated expanding equations of state"**
F. S. N. Lobo
arXiv:gr-qc/0611150
To appear in the proceedings of 11th Marcel Grossmann Meeting on Recent Developments in Theoretical and Experimental General Relativity, Gravitation, and Relativistic Field Theories, Berlin, Germany, 23-29 Jul 2006

23. **"Stable phantom energy traversable wormhole models"**
F. S. N. Lobo
AIP Conf. Proc. **861**, 936 (2006) [arXiv:gr-qc/0603091]
To appear in the proceedings of Albert Einstein's Century International Conference, Paris, France, 18-22 Jul 2005

24. **"Linearized warp drive and the energy conditions"**
F. S. N. Lobo and M. Visser
arXiv:gr-qc/0412065
To appear in the proceedings of 27th Spanish Relativity Meeting: Beyond General Relativity (ERES 2004), Madrid, Spain, 23-25 Sep 2004

25. **"Thin shells around traversable wormholes"**
F. S. N. Lobo
arXiv:gr-qc/0401083

Talk given at APCTP Winter School and Workshop on Quantum Gravity, Black Holes and Wormholes, Seoul, Korea, 11-14 Dec 2003

26. **"Constraints on wormhole geometries"**
F. Lobo and P. Crawford
Prepared for 9th Marcel Grossmann Meeting on Recent Developments in Theoretical and Experimental General Relativity, Gravitation and Relativistic Field Theories (MG 9), Rome, Italy, 2-9 Jul 2000

3.6 Selected Presentations in International Conferences

1. **Hybrid metric-Palatini gravity**
Invited plenary lecture delivered at the 3rd International Winter School-Seminar on Gravity, Astrophysics and Cosmology "Petrov School 2017", "Institute of Physics of Kazan Federal University", Kazan, Russia, 27th November-2nd December 2017.

2. **Generalized curvature-matter couplings in modified gravity**
Invited plenary lecture delivered at the 3rd International Winter School-Seminar on Gravity, Astrophysics and Cosmology "Petrov School 2017", "Institute of Physics of Kazan Federal University", Kazan, Russia, 27th November-2nd December 2017.

3. **Hybrid metric-Palatini gravity: astrophysical and cosmological phenomenology**
Plenary talk delivered at the Connections in Astronomy, Astrophysics, Space and Planetary Sciences, "Babes-Bolyai University", Cluj-Napoca, Romania, 29-30th May 2017.

4. **Wormholes, warp drives and energy conditions**
Talk delivered at the "12th Iberian Cosmology Meeting (IberiCOS 2017)", in Valencia, Spain, 10-12th April 2017.

5. **Wormholes, warp drives and energy conditions**
Talk delivered at the "Cosmology and Gravitation at the University of Beira Interior" conference, in Covilhã, Portugal, 10-11th February 2017.

6. **Hybrid metric-Palatini gravity**
Plenary talk delivered at the "Beyond Concordance Model II 2016" conference, in Cape Town, South Africa, 28th November–2nd December 2016.

7. **A hybrid gravitational Cantata: astrophysical and cosmological applications**
Plenary talk delivered at the "1st CANTATA Cost action workshop Cosmology and Astrophysics Network for Theoretical Advances and Training Actions", in Lisbon, Portugal, 11-12th November 2016.

8. **The modern renaissance of traversable wormholes**
Invited lecture delivered at the "Virtual Institute of Astroparticle Physics (VIA)", in Lisbon, Portugal, 21st October 2016.
(http://viavca.in2p3.fr/site.html)

9. **Gravitational, lensing, and stability properties of Bose-Einstein condensate dark matter halos**

Talk delivered at the Dark Matter 2016: From the smallest to the largest scales in Santander, Spain, June 27th-July 1st 2016.

10. **Beyond Einstein's General Relativity: 100 years-on**
    Invited talk delivered at the GR 100 years in Lisbon, Instituto Superior Tecnico, Lisbon, December 19-20, 2015.

11. **Beyond Einstein's General Relativity: 100 years-on**
    Invited talk delivered at the 100 years of General Relativity, Porto 2015, University of Porto, Porto, November 19-20, 2015.

12. **From the Einstein-Rosen bridge and geons to the modern renaissance of traversable wormholes**
    Invited plenary talk delivered at the "The Time Machine Factory: [Unspeakable, Speakable] on Time Travel", Palazzo del Rettorato, hosted by the Università di Torino, 25-28 of October, 2015.

13. I chaired the AT3 parallel session "Alternative Theories" at the 14th Marcel Grossmann Meeting, at the University of Rome "La Sapienza" – Rome, July 12-18, 2015.

14. **Novel stability approach of thin-shell gravastars**
    Invited talk delivered at the BS1-2–Boson stars parallel session, "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza" – Rome, July 12-18, 2015.

15. **A novel approach to thin-shell wormholes and applications**
    Invited talk delivered at the BH4–Black Holes: Theory parallel session, "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza" – Rome, July 12-18, 2015.

16. **Soliton models for thick branes**
    Talk delivered at the AT2–Alternative Theories parallel session, "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza" – Rome, July 12-18, 2015.

17. **From the Flamm-Einstein-Rosen bridge to the modern renaissance of traversable wormholes**
    Rapporteur talk delivered at the AT3–Alternative Theories parallel session, "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza" – Rome, July 12-18, 2015.

18. **Irreversible matter creation processes through a nonminimal curvature-matter coupling**
    Invited talk delivered at the AT1–Alternative Theories parallel session, "The Fourteenth Marcel Grossmann Meeting on General Relativity", University of Rome "La Sapienza" – Rome, July 12-18, 2015.

19. **Gravitational induced particle production through a nonminimal curvature-matter coupling**
    Invited talk delivered at the "First Meeting on Cosmology and Gravitation at Serra da Estrela", held in Covilhã, Portugal, at the University of Beira Interior, 20th-21st of February 2015.

20. **Extending Einstein's General Relativity**
    Talk delivered at the Dark Side of the Universe, held in Cape Town, South Africa, at the University of Cape Town, 17th-21st of November 2014.

21. **Phenomenological aspects of modified gravity**
    Invited talk delivered at the "Multiple Messengers and Challenges in Astroparticle Physics" workshop, hosted by the Gran Sasso Science Institute (Center for Advanced Studies) of L'Aquila (Italy), 6th-17th October, 2014.

22. **Beyond Einstein's General Relativity**
    Plenary talk delivered at "The Spanish Relativity Meeting 2014" (ERE2014), hosted by the University of Valência, 1st-5th of September, 2014.

23. **The equivalence principle and modified gravitation theory**
    Talk delivered at the IX Iberian Cosmology Meeting, held in Aveiro, Portugal, at the Physics Department of the University of Aveiro, 28th-30th of April 2014.

24. **Meeting on the horizon-throat: From the Einstein-Rosen bridge and geons to the modern renaissance of space-time tunnels**
    Plenary talk delivered at the 1st "Meeting on the Horizon", held at the Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile, 10th-14th March, 2014.

25. **Foundations of (modified) gravitation theory**
    Talk delivered at the "Dark Side of the Universe 2013", IX International Workshop, 14th-17th October 2013, SISSA (Trieste, Italy).

26. **Extended Theories of Gravity II**
    Invited lecture delivered (18th September) at the "Modified Gravity Theories: Beyond Einstein's Legacy" workshop, Science Faculty of the University of Lisbon, Portugal, 16-18 September, 2013.

27. **Extended theories of gravity and the late-time cosmic acceleration**
    Invited lecture delivered (16th September) at the "Modified Gravity Theories: Beyond Einstein's Legacy" workshop, Science Faculty of the University of Lisbon, Portugal, 16-18 September, 2013.

28. **Extended theories of gravity and the late-time cosmic acceleration**
    Keynote talk delivered at the "XXIII Encontro Nacional de Astronomia e Astrofsica 2013" (XXIII ENAA), Science Faculty of the University of Lisbon, Lisbon, Portugal, 18-19 July, 2013.

29. **Traversable wormholes in modified theories of gravity**
    Talk delivered at "The Time Machine Factory", Turin, Italy, 14-20 October, 2012.

30. **Extended $f(R, L_m)$ theories of gravity**
    Talk delivered at "The Thirteenth Marcel Grossmann Meeting on General Relativity", Stockholm University, Sweden, 1-7 July, 2012.

31. **Traversable wormholes supported by dark gravity**
    Talk delivered at "The Thirteenth Marcel Grossmann Meeting on General Relativity", Stockholm University, Sweden, 1-7 July, 2012.

32. **Linearized stability analysis of generic thin-shells**
Invited rapporteur talk delivered at "The Thirteenth Marcel Grossmann Meeting on General Relativity", Stockholm University, Sweden, 1-7 July, 2012.

33. **Self Sustained Traversable Wormholes in Modified Gravity Theories**
Talk delivered at "The Thirteenth Marcel Grossmann Meeting on General Relativity", Stockholm University, Sweden, 1-7 July, 2012.

34. **Wormhole geometries in modified gravity**
Talk delivered at the "Spanish Relativity Meeting 2011" (ERE 2011): Gravity as a Crossroad in Physics, Departamento de Física Teórica I at Complutense University of Madrid, Spain, 29 Aug-2 Sep 2011.

35. **Late-time cosmic acceleration: Dark gravity**
Talk delivered at the "Spanish Relativity Meeting 2010" (ERE 2010): Gravity as a Crossroad in Physics, Instituto de Astrofísica de Andalucía (IAA-CSIC), Granada, 6-10 Sep. 2010.

36. $f(G)$ **modified gravity and the energy conditions**
Talk delivered at the "Spanish Relativity Meeting 2010" (ERE 2010): Gravity as a Crossroad in Physics, Instituto de Astrofísica de Andalucía (IAA-CSIC), Granada, 6-10 Sep. 2010.

37. **Solar System tests of Horava-Lifshitz black holes**
II Workshop on Black Holes, Instituto Superior Tecnico, Lisbon, 21-22 December 2009

38. **Title: The dark side of gravity**
3rd Iberian Cosmology Meeting, Complexo Interdisciplinar da Universidade de Lisboa, Lisbon, Portugal, 6-7 March, 2008.

39. **Stable dark energy star models (poster)**
Origins of Dark Energy Conference, Origins Institute at McMaster University, Ontario, 14-17 May, 2007.

40. **Traversable wormholes supported by cosmic accelerated expanding equations of state**
Invited talk delivered at The Eleventh Marcel Grossmann Meeting on General Relativity, Freie University, Berlin, 23-29 July, 2006.

41. **Stable dark energy stars: An alternative to black holes?**
Invited talk delivered at The Eleventh Marcel Grossmann Meeting on General Relativity, Freie University, Berlin, 23-29 July, 2006.

42. **Linearized stability analysis of dynamic thin shells**
Fsica 2005, "Fsica para o Sculo XXI", Centro de Congressos e Exposies da Alfndega do Porto, 1-3 Dezembro 2005.

43. **Stable phantom energy traversable wormhole models**
Albert Einstein Century International Conference, Paris, 18-22 July 2005.

44. **Linearized warp drive and the energy conditions**
Spanish Relativity Meeting 2004 (ERE 2004): Beyond General Relativity, Miraflores de la Sierra, Madrid, 23-25 Sep. 2004.

45. **Thin shells around traversable wormholes** APCTP Winter School and Workshop: Quantum Gravity, Black Holes and Wormholes, POSTECH, Pohang School of Environmental Engineering, South Korea, 11-14 Dec. 2003.

46. **Linearized stability in thin-shell wormholes**
XIV International Congress of Mathematical Physics, General Relativity Session, Universidade de Lisboa, 28 July 2 August 2003.

47. **Time, Closed Timelike Curves and Causality**
Invited talk delivered at the NATO Advanced Research Workshop. The Nature of Time: Geometry, Physics and Perception, Astronomic Institute, Slovak Academy of Sciences, Tatranska Lomnica, Slovak Republic, 21-24 May 2002.

48. **Weak Energy Condition Violation and Superluminal Travel**
Spanish Relativity Meeting 2001 (ERE 2001), Universidad Politcnica de Madrid e Universidad Complutense de Madrid, 18-21 Sep. 2001.

49. **Viagens Interstelares Hiper-rápidas em Relatividade Geral**
XI Encontro Nacional de Astronomia e Astrofsica, Universidade da Madeira, Funchal, 26/27 July 2001.

50. **Constraints on Wormhole geometries**
The Ninth Marcel Grossmann Meeting, University of Rome La Sapienza, 2-8 July, 2000.

51. **Wormhole evolution in a Homogeneous Cosmological Model**
Relativistic Cosmology: A Symposium in Honour of George Ellis, University of Cape Town, 1-5 Feb. 1999.

4 Referee in Journals and Scientific Advisor

4.1 Referee in Journals

1. Advances in High Energy Physics
2. Annals of Physics
3. Applied Mathematics and Computation
4. Astrophysics and Space Science
5. Canadian Journal of Physics
6. Classical and Quantum Gravity
7. Europhysics Letters
8. Foundations of Physics
9. General Relativity and Gravitation
10. International Journal of Geometric Methods in Modern Physics
11. International Journal of Modern Physics A
12. International Journal of Modern Physics D
13. International Journal of Theoretical Physics
14. Journal of Cosmology and Astroparticle Physics (JCAP)
15. Journal of Physics A: Mathematical and Theoretical
16. Modern Physics Letters A
17. Monthly Notices of the Royal Astronomical Society
18. New Astronomy
19. Physical Review Letters
20. Physical Review D
21. Physics Letters A
22. Physics Letters B
23. Physics Scripta

4.2 Scientific Advisor and Reviewer

1. Scientific Reviewer of the Czech Science Foundation.

2. Scientific Adviser and Reviewer for The National Research Foundation (NRF), South Africa.

3. Scientific Adviser and Reviewer for the FONDECYT (Chile).

4. Scientific Reviewer of the Academic Sciences of Romania (The Executive Agency for Higher Education, Research, Development and Innovation Funding of Romania).

5. Scientific Reviewer of the "CONEX – CONnectingEXcellence to UC3M" program of the The Universidad Carlos III de Madrid (UC3M), Spain

6. Scientific Reviewer of the Estonian Research Council (The Executive Agency for Higher Education, Research, Development and Innovation Funding of Estonia).

5 Referees

1. **Professor Roy Maartens**
   Department of Physics & Astronomy,
   University of the Western Cape,
   Cape Town 7535, South Africa, and
   Institute of Cosmology and Gravitation,
   University of Portsmouth
   Dennis Sciama Building
   Burnaby Road
   Portsmouth, PO1 3FX
   United Kingdom
   roy.maartens@port.ac.uk

2. **Professor Salvatore Capozziello**
   Dipartimento di Fisica, Università di Napoli "Federico II",
   Compl. Univ. di Monte S. Angelo,
   Edificio G, Via Cinthia, I-80126, Napoli, Italy, and
   Istituto Nazionale di Fisica Nucleare (INFN)
   Sez. di Napoli, Compl. Univ. di Monte S. Angelo,
   Edificio G, Via Cinthia, I-80126, Napoli, Italy.
   capozzie@na.infn.it

3. **Professor Sergei D. Odintsov**
   Consejo Superior de Investigaciones Científicas,
   ICE/CSIC-IEEC, Campus UAB, Facultat de Ciències,
   Torre C5-Parell-2a pl, E-08193 Bellaterra (Barcelona), Spain, and
   Institució Catalana de Recerca i Estudis Avancats (ICREA), Barcelona, Spain
   odintsov@ieec.uab.es

4. **Professor Orfeu Bertolami**
   Departamento de Física e Astronomia, Faculdade de Ciências,
   Universidade do Porto, Rua do Campo Alegre 687, 4169-007 Porto, Portugal, and
   Instituto Superior Técnico,
   Departamento de Física and Centro de Física dos Plasmas,
   Av. Rovisco Pais 1, 1049-001 Lisboa, Portugal
   orfeu.bertolami@fc.up.pt
   orfeu@cosmos.ist.utl.pt

5. **Professor Tiberiu Harko**
   Department of Mathematics, University College London,
   Gower Street, London WC1E 6BT, United Kingdom
   t.harko@ucl.ac.uk