

Sebastián Bahamonde

Curriculum Vitae

PERSONAL DETAILS

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| <i>Nationalities</i> | Chilean, Spanish. |
| <i>Place of birth</i> | Puerto Varas, X Region, Lake District, Chile. |
| <i>City</i> | Tokyo, Japan. |
| <i>Mail</i> | sbahamondebeltran@gmail.com |
| <i>Website</i> | http://sebastianbahamonde.com |
| <i>Languages</i> | Spanish (native), English, Japanese (~ N4). |

EDUCATION

- **PhD in Mathematics (24/08/2018)**
University College London, Mathematics Department, London, United Kingdom.
- **MSc in Physics (31/05/2013)**
Universidad de Concepción, Physics Department, Concepción, Chile
First-Class Honours.
- **Professional degree in Astronomy (03/06/2013)**
Universidad de Concepción, Physics Department, Concepción, Chile
First-Class Honours.
- **BSc. in Physical Science (06/01/2011)**
Universidad de Concepción, Physics Department, Concepción, Chile
First-Class Honours.

WORK EXPERIENCE

- **Postdoctoral Research Fellow (Oct 2023 – Present)**
University of Tokyo, Kavli IPMU, Tokyo, Japan
- **JSPS Postdoctoral Research Fellow (Dec 2021 – Sep 2023)**
Tokyo Institute of Technology, Tokyo, Japan
- **Visiting researcher in Theoretical Physics (Dec 2021 – Dec. 2022)**
Visiting researcher, University of Tartu, Estonia
- **Research Fellow in Theoretical Physics (January 2019 – Dec 2021)**
Postdoctoral position, University of Tartu, Estonia
- **Teaching Fellow (Jan 2021 – July 2021)**
PhD course “Selected Topics in the Theories of Gravity”, University of Tartu, Estonia
- **Associate Researcher (April 2020 – July 2021)**
Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia

- **Visiting researcher (10/10/2018 – 31/03/2020)**

University College London, UK.

- **Ogden–Isaac Physics Fellow (31/08/2018 – January 2019)**

University of Lincoln (Lincoln, UK) & Isaac Institute, University of Cambridge, UK.
Outreach and Teaching

- **Demonstrator (1/10/2014–31/03/2019)**

University College London, London, UK.

I worked as a demonstrator, marking Mathematics homework.

- **Teaching fellow (01/03/2013–31/07/2014)**

Universidad de Los Lagos, Puerto Montt, Chile.

I taught different Physics and Mathematics courses for Engineering students.

First semester of 2014: Teaching “Waves and modern Physics”, “General Physics” and “Optics and electromagnetism” (16 hours per week).

Second semester of 2013: Teaching “Mechanical Physics” , “Basis of Math and Physics II”, “Introduction of Physics” and “Waves and modern Physics” (22 hours per week).

First semester of 2013: Teaching “General Physics”, “Basis of Mathematics and Physics I”, “Optics and electromagnetism” and “Multivariable Calculus” (24 hours per week).

- **Teaching fellow (01/03/2013–31/07/2013)**

Universidad Santo Tomás, Puerto Montt, Chile.

I taught one course for dentistry students

- **Associate researcher (01/03/2012–31/05/2013)**

Universidad del Bío Bío, Concepción, Chile (part-time).

Project DIUBB 121007 2R, CONICYT-CHILE, conducted by Dr. Mauricio Cataldo.

- **Physics Teacher (01/03/2012–28/02/2013)**

San Ignacio School, Concepción, Chile (part-time, 25 hours per month)

- **Maths Teacher (01/04/2010–30/11/2010)**

Social Pre-University for vulnerable students without remuneration, Hualpén, Chile.

CONFERENCES AND MEETINGS

- **Exhibitor in “IBS seminar” (1/08/2023)**

Yukawa Institute for Theoretical Physics, Kyoto University, Japan.

- **Exhibitor in “Dawn of field theoretic approach” (20/07/2023)**

Yukawa Institute for Theoretical Physics, Kyoto University, Japan.

- **Organising committee in “Geometric Foundations of Gravity 2023” (19-22/06/2023)**

University of Tartu, Tartu, Estonia.

- **Exhibitor in “Canadian Quantum Research Center seminar” (14/02/2023)**

Canada (Online).

- **Exhibitor in “Helsinki University Cosmology Seminar” (08/02/2023)**

Helsinki University, Finland (Online).

- **Exhibitor in “2022 Winder CAS-JSPS workshop” (13/12/2022)**

CEICO, Prague, Czech Republic.

- **Exhibitor in “Recent Research in Gravity” (29/11/2022)**
Zhejiang Normal University, China (online).
- **Exhibitor in “The 31th Workshop on General Relativity and Gravitation in Japan 2022” (27/10/2022)**
University of Tokyo, Japan.
- **Exhibitor in “Proca Seminars” (08/09/2022)**
Romania (Online).
- **Exhibitor in “2022 Summer CAS-JSPS Workshop in Cosmology, Gravitation, and Particle Physics” (30/08/2022)**
Oshima, Japan.
- **Organising committee and also exhibitor in “Metric-Affine Frameworks for Gravity 2022” (27/06-01/07-2022)**
University of Tartu, Tartu, Estonia.
- **Exhibitor in “Gravity Current challenges in black hole physics and cosmology” (20/06/2022)**
Yukawa Institute for Theoretical Physics, Kyoto University, Japan.
- **Exhibitor in “Nagoya University seminar” (06/06/2022)**
Nagoya University, Nagoya, Japan.
- **Exhibitor in “Waseda University seminar” (22/03/2022)**
Waseda University, Japan (online).
- **Exhibitor in “Holography and its applications” (10/03/2022)**
Iran (online).
- **Exhibitor in “Winter Korea-Japan NRF-JSPS workshop” (22/02/2022)**
South Korea (online).
- **Exhibitor in “Osaka City University seminar” (21/02/2022)**
Osaka City University, Osaka, Japan.
- **Exhibitor in “Yukawa International Seminar 2022a Gravity” (15/02/2022)**
Yukawa Institute for Theoretical Physics, Kyoto University, Japan.
- **Exhibitor in “Recent Advances in Theoretical Cosmology and Astrophysics” (18/12/2021)**
Greece (online).
- **Exhibitor in “Tokyo Institute of Technology seminar” (15/12/2021)**
Tokyo Institute of Technology, Tokyo, Japan.
- **Exhibitor in “The 30th Workshop on General Relativity and Gravitation in Japan 2021” (09/12/2021)**
Japan (online).
- **Organising committee and also exhibitor in “Geometric Foundations of Gravity 2021” (28/06-02/07-2021)**
University of Tartu, Tartu, Estonia.
- **Exhibitor in “Impact of Mathematica in Modern Era 2021” (08/02/2021)**
The Islamia University of Bahawalpur, Bahawalpur, Pakistan (online).
- **Exhibitor in “Tokyo Institute of Technology seminar” (20/01/2021)**

Tokyo Institute of Technology, Tokyo, Japan (online).

• **Exhibitor in “Virtual Conference of the Polish Society on Relativity 2020” (26/09/2020)**

Poland (online).

• **Exhibitor in “CoCo Cosmology 2020” (23/09/2020)**

Colombia (online).

• **Exhibitor in “The Fourth Zeldovich virtual meeting” (19/08/2020)**

ICRANet and National Academy of Sciences of Belarus (online)

• **Exhibitor in “14th International Conference on Gravitation, Astrophysics and Cosmology” (19/08/2020)**

National Central University, Jhongli, Taiwan (online).

• **Organising committee and also exhibitor in “Teleparallel workshop 2020” (15-19/06/2020)**

University of Tartu, Tartu, Estonia. • **Poster presentation in “Quantum and Gravity in Okinawa 2019” (23-27/07/2019)**

Okinawa Institute of Science and Technology Graduate University, Okinawa, Japan.

• **Poster presentation in “Beyond General Relativity, Beyond cosmological standard model” (1-5/07/2019)**

University of Warsaw, Warsaw, Poland.

• **Organising committee and also exhibitor in “Geometric Foundations of Gravity 2019” (17-21/06/2019)**

University of Tartu, Tartu, Estonia.

• **Exhibitor in “2019 YITP Asian-Pacific Winter School and Workshop on Gravitation and Cosmology” (13/02/2019)**

Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan.

• **Invited speaker and chair in a parallel session in “1st PUICGC” (30/01/2019)**

University of the Punjab, Lahore, Pakistan.

• **Invited speaker in “Third CANTATA Meeting in Valencia” (01/10/2018)**

University of Valencia, Burjassot, Valencia, Spain.

• **Exhibitor in “Marcel Grossman conference (MG15)” (02/07/2018)**

AT1 parallel session, University of Rome “La Sapienza”, Rome, Italy.

• **Exhibitor in “Teleparallel Gravity Workshop” (27/06/2018)**

University of Tartu, Tartu, Estonia.

• **Exhibitor in “ComplexiLate” (30/05/2018)**

London Institute for Mathematical Sciences, London, UK.

• **Exhibitor in “BritGrav 2018” (18/04/2018)**

University of Portsmouth, Portsmouth, UK.

• **Exhibitor in “International Max Planck Research School (IMPRS) on Gravitational Wave Astronomy” (15/03/2018)**

IMPRS, Hannover, Germany

• **Exhibitor in “Gravity and Cosmology 2018” (01/03/2018)**

Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan

- **Exhibitor in “Revising Foundations of Physics workshop” (14/12/2017)**
University College London, London, UK
- **Exhibitor in “Particle and Fields” seminar (04/12/2017)**
Ben-Gurion University of the Negev, Beer-Sheva, Israel
- **Exhibitor in “Geometric Foundations of Gravity” (31/08/2017)**
University of Tartu, Tartu, Estonia.
- **Exhibitor in the UK Cosmology 2017 meeting (05/04/2017)**
University of Portsmouth, Portsmouth, UK.
- **Exhibitor in the Theoretical Physics seminar in Naples (23/03/2017)**
Università degli Studi di Napoli “Federico II”, Naples, Italy.
- **Exhibitor in the Theoretical Physics seminar in Tartu (28/02/2017)**
University of Tartu, Tartu, Estonia.
- **Exhibitor in “Quantum Structure of Spacetime and Gravity (26/08/2016)**
University of Belgrade, Belgrade, Serbia
- **Exhibitor in “21st International Summer School on Global Analysis and Applications” (15/08/2016)**
Institute of Stefan Nahalka, Catholic University, Poprad, Slovakia.
- **Exhibitor in the Postgraduate Mathematics seminar (05/11/2015)**
University College London, London, UK.
- **Exhibitor in “Cosmoconce” (15/03/2013).**
Universidad del Bío Bío, Concepción, Chile.

GRANTS, SCHOLARSHIPS AND AWARDS

- ***ANID Postdoctoral Chilean fellowship “Becas Chile” (From Oct 2023)**
USD 52,800 (for 2 years) + others.
- ***JSPS Postdoctoral Fellowship for Research in Japan - Standard term Program (08/2021)**
¥4,344,000 per year (2 years) + a round-trip air ticket + ¥200,000.
- ***JSPS Postdoctoral Fellowship for Research in Japan - Short term Program (09/2021)**
¥4,344,000 for salary for one year + a round-trip air ticket + ¥200,000.
- ***National Natural Science Foundation Of China International (Regional) Cooperation And Exchange Project The Research Fund for International Young Scientists - China (01/04/2021 – 01/04/2023)**
300,000 RMB for research (cancelled due to COVID19).
- ***International Postdoctoral Exchange Fellowship Program - Talent-Introduction Program- China (01/04/2021 – 01/04/2023)**
Allowance of 200,000 RMB each year+another 100,000 RMB per year by the host institution/group (cancelled due to COVID19).
- ***Mobilitas Plus postdoctoral researcher grant (01/01/2019 – 31/12/2020)**
Estonian Research council, EUR 40,000 grant (per year) + EUR 5,500 for relocation.
- **Gravity Research Foundation 2020 Awards for Essays on Gravitation (2020)**

Honourable mention for the essay “Quantum Weak Equivalence Principle and the Gravitational Casimir Effect in Superconductors”

- **Gravity Research Foundation 2019 Awards for Essays on Gravitation (2019)**

Honourable mention for the essay “Is Gravity Actually the Curvature of Spacetime?”

- **ITC Conference Grant - CANTATA (2019)**

2,000 EUR to attend the 2019 YITP Asian-Pacific Winter School and Workshop on Gravitation and Cosmology, Kyoto, Japan.

- **Invited speaker at the 1st PU International conference in gravitation and cosmology (2019)**

Travel expenses, full hospitality and accommodation (~ 1200 EUR). University of the Punjab, Lahore, Pakistan.

- **2019 YITP Asian-Pacific Winter School and Workshop on Gravitation and Cosmology - (2019)**

Financial support to attend conference at the Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan (around 650 GBP).

- **Short Term Scientific Missions COST action - CANTATA (2019)**

EUR 1,250 to visit the Institute of Space Sciences and Astronomy at the University of Malta, Msida, Malta (1 week).

- **Short term Scientific Missions COST action - GWverse (2019)**

EUR 1,400 to visit Institute of Space Sciences and Astronomy at the University of Malta, Msida, Malta (1 week).

- **COST action meeting - CANTATA (2018)**

Invited to present a talk in the CANTATA meeting in Valencia, 1-3 October 2018 (~ EUR 650)

- ***CONICYT PhD Chilean scholarship “Becas Chile” (01/09/2014 – 31/08/2018)**

It covered tuition fees (~ GBP 17,190 per year), cost of living and others (~ USD 23,142 per year).

- **Short term Scientific Missions COST action - GWverse (2018)**

Financial support (EUR 300) to assist the “Dublin School on Gravitational Wave Source Modelling”, Dublin, Ireland.

- **JJ Sylvester Scholarship (2018)**

Award (GBP 2,000) given by University College London.

- **Gravitation and Cosmology - long-term workshop (2018)**

Financial support to attend the workshop in the Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan (6 weeks - around 1,500 GBP).

- **Short term Scientific Missions COST action - GWverse (2017)**

EUR1,650 to visit Ben-Gurion University of the Negev, Beer-Sheva, Israel (2 weeks).

- **JJ Sylvester Scholarship (2017)**

Award (GBP 1,000) given by University College London.

- **David Warren Scholarship (2017)**

Award (GBP 500) given by University College London.

- **Abbott (Corte) Studentship (2017)**

Award (GBP 250) given by University College London.

- **Invitation for a talk at University of Tartu, Estonia (2017)**

All expenses were covered by the University (120 GBP)

- **Short Term Scientific Missions COST action - CANTATA (2017)**

EUR 1,000 to visit Instituto de Astrofísica e Ciências do Espaço, Lisbon, Portugal (1 week).

- **Short Term Scientific Missions COST action - CANTATA (2017)**

EUR 1,000 to visit Università degli Studi di Napoli “Federico II”, Naples, Italy (1 week).

- **LACES 2016**

Financial support (accommodation and lunches) to attend the school at Galileo Galilei Institute of Theoretical Physics, Florence, Italy.

- **COST MP1405 - Training School I: QSpace (2016)**

Financial support (EUR 545) to attend the conference in Belgrade, Serbia.

- **JJ Sylvester Scholarship (2015)**

Award (GBP 1,000) given by University College London.

- **Monica Hulse Scholarship (2014)**

Award (GBP 1,000) given by University College London.

- **“100 Years of General Relativity: From Theory to Experiment and Back” (2014)**

Financial support (USD 1,055) to attend the school at Institute for Advanced Studies Jerusalem, Israel.

- ***Scholarship undergraduate-postgraduate for Master studies**

It covered the Master tuition fees for two years (~ USD 9,000). It was given by Universidad de Concepción, Chile (2011-2013)

OTHER ACTIVITIES

Reviewer for Funding agencies:

NRDI Office (Hungary): Referee for call 2022.

CONICYT-FONDECYT (Chile) Initiation into Research funding (call 2018 and 2023).

Reviewer for Journals:

- Distinguished European Physical Journal referee for 2022.

- Referee Journals/Editorials: “Springer” (books), “Physics Letters B”, “Journal of Cosmology and Astroparticle Physics”, “Physical Review D”, “The European Physical Journal C”, “Progress of Physics”, “Classical and Quantum gravity”, “Physics of the Dark Universe”, “Nuclear Physics B”, “Annals of Physics”, “Universe”, “Astrophysics and Space Science”, “Annalen der Physik”, “General Relativity and Gravitation”, “Entropy”, “Advances in High Energy Physics”, “International Journal of Modern Physics D”, “Canadian Journal of Physics”, “Europhysics Letters” and “Journal of High Energy Physics, Gravitation and Cosmology” (see <https://publons.com/a/1241804>).

Editor in Journals:

- Topical editor in the “Symmetry” journal.
- Guest editor for the Special edition in “Teleparallel Gravity: Foundations and Observational Constraints” (2020) in “Universe” journal.
- Guest editor for the Special edition in “Relativistic Aspects of Stellar Structures and Modified Theories of Gravity” (2020) in “Advances in Astronomy” journal.
- Guest editor for the Special edition in “Noether’s symmetry in Physics” (2019) in “Symmetry” journal.

Outreach activities:

- Organiser of the Physics Challenge 2018/2019
<https://lincolnmathsphys.wordpress.com/2018/10/12/physics-challenge-2018-2019/>
 University of Lincoln, UK.
- Organiser of the Isaac Physics for school children 2018 (Oct.)/2019 (Jan.)
 University of Lincoln & University of Cambridge, UK (<https://isaacphysics.org>).
- Organiser of the “The Physicist of the Year”, 2018/2019
 Ogden Trust, University of Lincoln, UK (<https://www.ogdentrust.com/university-links/school-physicist-of-the-year>).

LIST OF PUBLICATIONS

73 published papers+2 book contributions, index $h = 32$, index $i_{10} = 56$, ~ 3400 citations:

1. S. Bahamonde, D. D. Doneva, L. Ducobu, C. Pfeifer and S. S. Yazadjiev, “Distinctive features of hairy black holes in teleparallel Gauss-Bonnet gravity,” Phys. Rev. D **108** (2023) no.6, 064044 [arXiv:2307.14720 [gr-qc]].
2. J. M. Armaleo, S. Bahamonde, G. Trenkler and L. G. Trombetta, “Symmetric Teleparallel Gauss-Bonnet Gravity and its Extensions,” [arXiv:2308.07299 [gr-qc]]. To appear in PRD.
3. S. Bahamonde and J. Gigante Valcarcel, “Algebraic classification of the gravitational field in Weyl-Cartan spacetimes,” Phys. Rev. D **108** (2023) no.4, 044037 [arXiv:2305.05501 [gr-qc]].
4. S. Bahamonde, G. Trenkler, L. G. Trombetta and M. Yamaguchi, “Symmetric teleparallel Horndeski gravity,” Phys. Rev. D **107** (2023) no.10, 104024, [arXiv:2212.08005 [gr-qc]].
5. S. Bahamonde, D. D. Doneva, L. Ducobu, C. Pfeifer and S. S. Yazadjiev, “Spontaneous scalarization of black holes in Gauss-Bonnet teleparallel gravity,” Phys. Rev. D **107** (2023) no.10, 104013, [arXiv:2212.07653 [gr-qc]].
6. S. Bahamonde, J. Chevrier and J. Gigante Valcarcel, “New black hole solutions with a dynamical traceless nonmetricity tensor in Metric-Affine Gravity,” JCAP **02** (2023), 018, [arXiv:2210.05998 [gr-qc]].
7. S. Bahamonde, K. F. Dialektopoulos, M. Hohmann, J. Levi Said, C. Pfeifer and E. N. Saridakis, “Perturbations in non-flat cosmology for $f(T)$ gravity,” Eur. Phys. J. C **83** (2023) no.3, 193, [arXiv:2203.00619 [gr-qc]].
8. S. Bahamonde, K. F. Dialektopoulos, C. Escamilla-Rivera, G. Farrugia, V. Gakis, M. Hendry, M. Hohmann, J. Levi Said, J. Mifsud and E. Di Valentino, “Teleparallel gravity: from theory to cosmology,” Rept. Prog. Phys. **86** (2023) no.2, 026901, [arXiv:2106.13793 [gr-qc]]. (review paper)
9. S. Bahamonde and L. Järv, “Coincident gauge for static spherical field configurations in symmetric teleparallel gravity,” Eur. Phys. J. C **82** (2022) no.10, 963, [arXiv:2208.01872 [gr-qc]].
10. S. Bahamonde, S. Faraji, E. Hackmann and C. Pfeifer, “Thick accretion disk configurations in the Born-Infeld teleparallel gravity,” Phys. Rev. D **106** (2022) no.8, 084046, [arXiv:2209.00020 [gr-qc]].
11. K. Jusufi, S. Capozziello, S. Bahamonde and M. Jamil, “Testing Born-Infeld $f(T)$ teleparallel gravity through Sgr A* observations,” Eur. Phys. J. C **82** (2022) no.11, 1018, [arXiv:2205.07629 [gr-qc]].
12. Quach, James Q; Faizal, Mir; Norte, Richard A; Bahamonde, Sebastian, book “Breakdown of Einstein’s Equivalence Principle,” World Scientific, chapter “An Information Theoretic Approach to the Weak Equivalence Principle,” , pp. 99-118 (2022). (Book)
13. S. Bahamonde, J. Gigante Valcarcel, L. Järv and J. Lember, “Black hole solutions in scalar-tensor symmetric teleparallel gravity,” JCAP **08** (2022), 082, [arXiv:2206.02725 [gr-qc]].
14. S. Bahamonde, L. Ducobu and C. Pfeifer, “Scalarized black holes in teleparallel gravity,” JCAP **04** (2022) no.04, 018, [arXiv:2201.11445 [gr-qc]].

15. S. Bahamonde, J. G. Valcarcel and L. Järv, “Plebański-Demiański solutions with dynamical torsion and nonmetricity fields,” *JCAP* **04** (2022) no.04, 011, [arXiv:2201.10532 [gr-qc]].
16. S. S. Wani, J. Q. Quach, M. Faizal, S. Bahamonde and B. Pourhassan, “A Quantum Informational Approach to the Problem of Time,” *Found. Phys.* **52** (2022) no.1, 25, [arXiv:2112.00918 [gr-qc]].
17. A. Addazi, J. Alvarez-Muniz, R. A. Batista, G. Amelino-Camelia, V. Antonelli, M. Arzano, M. Asorey, J. L. Atteia, S. Bahamonde and F. Bajardi, *et al.* “Quantum gravity phenomenology at the dawn of the multi-messenger era – A review,” *Prog. Part. Nucl. Phys.* **103948**, 2022 [arXiv:2111.05659 [hep-ph]] (review paper).
18. S. Bahamonde, A. Golovnev, M. J. Guzmán, J. L. Said and C. Pfeifer, “Black holes in $f(T,B)$ gravity: exact and perturbed solutions,” *JCAP* **01** (2022) no.01, 037, [arXiv:2110.04087 [gr-qc]].
19. S. Bahamonde and J. G. Valcarcel, “Rotating Kerr-Newman space-times in metric-affine gravity,” *JCAP* **01** (2022) no.01, 011, [arXiv:2108.12414 [gr-qc]].
20. S. Bahamonde and J. L. Said, “Teleparallel Gravity: Foundations and Observational Constraints—Editorial,” *Universe* **7** (2021) no.8, 269.
21. S. Bahamonde, M. Caruana, K. F. Dialektopoulos, V. Gakis, M. Hohmann, J. Levi Said, E. N. Saridakis and J. Sultana, “Gravitational-wave propagation and polarizations in the teleparallel analog of Horndeski gravity,” *Phys. Rev. D* **104** (2021) no.8, 084082, [arXiv:2105.13243 [gr-qc]].
22. E. N. Saridakis *et al.* [CANTATA], “Modified Gravity and Cosmology: An Update by the CANTATA Network,” [arXiv:2105.12582 [gr-qc]]. Springer (2021). doi.org/10.1007/978-3-030-83715-0. (Book)
23. S. Bahamonde and J. Gigante Valcarcel, “Observational constraints in metric-affine gravity,” *Eur. Phys. J. C* **81** (2021) no.6, 495, [arXiv:2103.12036 [gr-qc]].
24. S. Bahamonde, V. Gakis, S. Kiorpelidi, T. Koivisto, J. Levi Said and E. N. Saridakis, “Cosmological perturbations in modified teleparallel gravity models: Boundary term extension,” *Eur. Phys. J. C* **81** (2021) no.1, 53 [arXiv:2009.02168 [gr-qc]].
25. S. Bahamonde, J. G. Valcarcel, L. Järv and C. Pfeifer, “Exploring Axial Symmetry in Modified Teleparallel Gravity,” *Phys. Rev. D* **103** (2021) no.4, 044058 [arXiv:2012.09193 [gr-qc]].
26. S. Bahamonde and C. Pfeifer, “General teleparallel modifications of Schwarzschild geometry,” *Int. J. Geom. Meth. Mod. Phys.* **18** (2021) no.supp 01, 2140001 [arXiv:2010.02161 [gr-qc]].
27. H. Sheikahmadi, M. Faizal, A. Aghamohammadi, S. Soroushfar and S. Bahamonde, “Inflation in String Field Theory,” *Nucl. Phys. B* **961** (2020), 115252, [arXiv:2005.07956 [hep-th]].
28. S. Bahamonde, M. Faizal, J. Q. Quach and R. A. Norte, “Quantum Weak Equivalence Principle and the Gravitational Casimir Effect in Superconductors,” *Int. J. Mod. Phys. D* **29** (2020), 14, [arXiv:2005.06640 [gr-qc]]. Essay received an honorable mention for the Gravity Research Foundation 2020 Awards for Essays on Gravitation
29. S. Bahamonde, M. Marciu, S. D. Odintsov and P. Rudra, “String-inspired Teleparallel cosmology,” *Nucl. Phys. B* **962** (2021), 115238, [arXiv:2003.13434 [gr-qc]].

30. S. Bahamonde, K. F. Dialektopoulos, M. Hohmann and J. Levi Said, “Post-Newtonian limit of Teleparallel Horndeski gravity,” *Class. Quant. Grav.* **38** (2020) no.2, 025006, doi:10.1088/1361-6382/abc441 [arXiv:2003.11554 [gr-qc]].
31. S. Bahamonde, J. Levi Said and M. Zubair, “Solar system tests in modified teleparallel gravity,” *JCAP* **10** (2020), 024, [arXiv:2006.06750 [gr-qc]].
32. S. Bahamonde and J. G. Valcarcel, “New models with independent dynamical torsion and nonmetricity fields,” *JCAP* **09** (2020), 057, [arXiv:2006.06749 [gr-qc]].
33. S. Bahamonde, K. Dialektopoulos and U. Camci, “Exact Spherically Symmetric Solutions in Modified Gauss–Bonnet Gravity from Noether Symmetry Approach,” *Symmetry* **12** (2020) no.1, 68 [arXiv:1912.12922 [gr-qc]].
34. H. Abedi, A. M. Abbassi and S. Bahamonde, “Hubble inflation in Randall–Sundrum type II model,” *Int. J. Mod. Phys. D* **29** (2020) no.06, 2050037,
35. S. Bahamonde and U. Camci, “Exact Spherically Symmetric Solutions in Modified Teleparallel gravity,” *Symmetry* **11** (2019) no.12, 1462 [arXiv:1911.03965 [gr-qc]].
36. S. Bahamonde, K. Flathmann and C. Pfeifer, “Photon sphere and perihelion shift in weak $f(T)$ gravity,” *Phys. Rev. D* **100** (2019) no.8, 084064 [arXiv:1907.10858 [gr-qc]].
37. S. Bahamonde, K. F. Dialektopoulos, V. Gakis and J. Levi Said, “Reviving Horndeski theory using teleparallel gravity after GW170817,” *Phys. Rev. D* **101** (2020) no.8, 084060 [arXiv:1907.10057 [gr-qc]].
38. S. Bahamonde, M. Marciu and P. Rudra, “Dynamical system analysis of generalized energy-momentum-squared gravity,” *Phys. Rev. D* **100** (2019) no.8, 083511 [arXiv:1906.00027 [gr-qc]].
39. S. Bahamonde and M. Faizal, “Is Gravity Actually the Curvature of Spacetime?,” *Int. J. Mod. Phys. D* **28** (2019) no.14, 1944021 [arXiv:1905.04372 [gr-qc]]. Essay received an honorable mention for the Gravity Research Foundation 2019 Awards for Essays on Gravitation
40. S. Bahamonde, K. F. Dialektopoulos and J. Levi Said, “Can Horndeski Theory be recast using Teleparallel Gravity?,” *Phys. Rev. D* **100** (2019) no.6, 064018, [arXiv:1904.10791 [gr-qc]].
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