

Publications

1. L. Manfredi, J. Mureika, J. Moffat, “Quasinormal Modes of Modified Gravity (MOG) Black Holes”, *Phys. Lett. B* (in press).
2. L. Manfredi, J. Mureika, J. Moffat, “Quasinormal Modes of Static Modified Gravity Black Holes”, *J. Conf. Phys.* (in press).
3. G. 't Hooft, S. B. Giddings, C. Rovelli, P. Nicolini, J. Mureika, M. Kaminski and M. Bleicher, “The Good, the Bad, and the Ugly of Gravity and Information,” *Springer Proc. Phys.* (in press).
4. S. Köppel, M. Knipfer, M. Isi, J. Mureika, P. Nicolini, “Generalized uncertainty principle and extra dimensions”, *Springer Proc. Phys.* (in press)
5. J. Mureika and G. Variaschi, “Black Hole Shadows in Fourth Order Conformal Weyl Gravity”, *Can. J. Phys.* **95**, 1299-1306 (2017).
6. J. R. Mureika, J. W. Moffat, M. Faizal, “Black Hole Thermodynamics in Modified Gravity (MOG)”, *Phys. Lett. B* **757**, 528 (2016).
7. R. Casadio, R. T. Cavalcanti, A. Giugno and J. Mureika, “Horizon of quantum black holes in various dimensions,” *Phys. Lett. B* **760**, 36 (2016).
8. L. Manfredi and J. Mureika, “Horizon Wavefunction of Generalized Uncertainty Principle Black Holes”, *AHEP* **2016**::1543741 (2016).
9. P. Nicolini, J. Mureika, M. Kaminski, M. Bleicher (eds), *Proceedings of the 1st Karl Schwarzschild Meeting on Gravitational Physics*, Springer Proceedings in Physics (2016).
10. A. M. Frassino, R. B. Mann, J. R. Mureika, “Lower dimensional black hole chemistry,” *Phys. Rev. D* **92** 124069 (2015).
11. B. Carr, J. Mureika, and P. Nicolini, “Sub-Planckian black holes and the generalized uncertainty principle,” *JHEP* **1507**:052 (2015).
12. M. Isi, J. Mureika, and P. Nicolini, “Self-completeness and the generalized uncertainty principle,” *JHEP* **1311**:139 (2013).
13. J. Mureika and P. Nicolini, “Self-completeness and spontaneous dimensional reduction,” *Eur. J. Phys. Plus* **128**, 78 (2013).
14. J. R. Mureika and R. P. Taylor, “The Abstract Expressionists and Les Automatistes: a Shared Multifractal Depth?” *Signal Proc.* **93**, 573-578 (2013)
15. J. R. Mureika, “Primordial Black Hole Evaporation and Spontaneous Dimensional Reduction,” *Phys. Lett. B* **716**, 171-175 (2012).
16. J. Mureika, P. Nicolini, E. Spallucci, “Could Any Black Holes be Produced at the LHC?”, *Phys. Rev. D* **85**, 106007 (2012).
17. J. R. Mureika, “Constraints on vector unparticle physics from cosmic censorship,” *Int. J. Theor. Phys.* **51**, 1259-1267 (2012).
18. T. Souaiaia and J. Mureika, “A Mathematical Model of the Environmental Effects on Long Jump Performance of World Class Athletes,” *Int. J. Comp. Sci. Sport* **11(2)**, 16-28 (2012)
19. J. Mureika and D. Stojkovic, “Detecting Vanishing Dimensions Via Gravitational Wave Astronomy”, *Phys. Rev. Lett.* **106**, 101101 (2011).

20. J. Mureika and D. Stojkovic, “Reply to the ‘Comment on: Detecting Vanishing Dimensions Via Primordial Gravitational Wave Astronomy’,” *Phys. Rev. Lett.* **107**, 169002 (2011).
21. J. Mureika and P. Nicolini, “Aspects of noncommutative $(1 + 1)$ -dimensional black holes”, *Phys. Rev. D* **84**, 044020 (2011).
22. R. B. Mann and J. R. Mureika, “ $(1+1)$ -Dimensional Entropic Gravity”, *Phys. Lett. B* **703**, 167-171 (2011).
23. J. R. Mureika and R. B. Mann, “Does Entropic Gravity Bound the Masses of the Photon and Graviton?”, *Mod. Phys. Lett. A* **26**, 171-181 (2011).
24. J. Mureika and E. Spallucci, “Vector unparticle enhanced black holes: exact solutions and thermodynamics,” *Phys. Lett. B* **693**, 129-133 (2010).
25. J. R. Mureika, “Differentiating unparticles from extra dimensions via mini-black hole thermodynamics,” *Phys. Rev. D* **79**, 056003 (2009).
26. J. R. Mureika, “Unparticle-Enhanced Black Holes at the LHC,” *Phys. Lett. B* **660**, 561-566 (2008).
27. J. R. Mureika, “Fractal Holography: A geometric re-interpretation of cosmological large scale structure,” *JCAP* **05:021** (2007).
28. J. R. Mureika, “Implications for Cognitive Quantum Computation and Decoherence Limits in the Presence of Large Extra Dimensions,” *Int. J. Theor. Phys.* **46**, 139-142 (2007).
29. J. R. Mureika, “Gravitationally-Induced Quantum Superposition Reduction with Large Extra Dimensions,” *Phys. Rev. D* **73**, 064012 (2006).
30. J. R. Mureika, “The Effects of Temperature, Humidity and Barometric Pressure on Short Sprint Race Times,” *Can. J. Phys.* **84**, 311-324 (2006).
31. J. R. Mureika, “Fractal Dimensions in Perceptual Color Space: A Comparison Study Using Jackson Pollock’s Art,” *Chaos* **15**, 043702 (2005).
32. J. R. Mureika, C. C. Dyer, G. C. Cupchik, “On Multifractal Structure in Non-Representational Art,” *Phys. Rev. E* **72**, 046101 (2005).
33. J. R. Mureika and C. C. Dyer, “Multifractal Analysis of Packed Swiss Cheese Cosmologies,” *Gen. Rel. Grav.* **36**, 151-184 (2004).
34. J. R. Mureika, G. C. Cupchik, C. C. Dyer, “Multifractal Fingerprints in the Visual Arts,” *Leonardo* **37**, 53-56 (2004).
35. J. R. Mureika, “Wind and Altitude Effects in the 200 Meter Sprint,” *Can. J. Phys.* **81**, 895-910 (2003).
36. J. Spiegel and J. Mureika, “A Model of Wind and Altitude Effects on 110-m Hurdles,” *Sportsci.* **7**, 034703 (2003).
37. J. R. Mureika, “A Realistic Quasi-Physical Model of the 100 Metre Dash,” *Can. J. Phys.* **79**, 697-713 (2001).
38. J. R. Mureika, “The Legality of Wind and Altitude Assisted Performances in the Sprints,” *New Stud. Athl.* **15**, 53-60 (2000).
39. J. R. Mureika, “A Simple Model for Predicting Sprint Race Times Accounting for Energy Loss on the Curve,” *Can. J. Phys.* **75**, 837-851 (1997).
40. J. R. Mureika, “Investigation of equivalence principle violations using solar neutrino oscillations in a constant gravitational potential,” *Phys. Rev. D* **56**, 2408-2418 (1997).

41. J. R. Mureika and R. B. Mann, "Gravitationally-Induced Three-Flavor Neutrino Oscillations as a Possible Solution to the Solar Neutrino Problem," *Fields Inst. Comm.* **15**, 303-306 (1997).
42. J. R. Mureika and R. B. Mann, "Three-Flavor Gravitationally-Induced Neutrino Oscillations and the Solar Neutrino Problem," *Phys. Rev. D* **54**, 2761-2778 (1996).
43. J. R. Mureika and R. B. Mann, "Mass or Gravitationally Induced Neutrino Oscillations? - A Comparison of ^8B Neutrino Flux Spectra in a Three-Generation Framework," *Phys. Lett. B* **368**, 112-118 (1996).
44. B. Holdom, M. Sutherland, J. Mureika, "Comparison of $1/m_Q^2$ Corrections in Mesons and Baryons," *Phys. Rev. D* **49**, 2359-2362 (1994).

Submitted or In Preparation

- A. Tzikas, P. Nicolini, J. Mureika, B. Carr, "Probability for primordial black holes in a lower dimensional universe", in preparation.
- A. M. Frassino, R. B. Mann, J. R. Mureika, "Exotic BTZ Black Hole Chemistry", in preparation.
- B. Carr, J. Mureika, P. Nicolini, "Self-completeness and duality between particles and spinning charged black holes", in preparation.

Invited Colloquia and Seminars (since 2010)

- "Sub-Planckian Black Holes", Perimeter Institute for Theoretical Physics, Waterloo, ON, Canada (09 Mar 2017)
- "Lower Dimensional Black Hole Chemistry", *Mann Fest: A 60th Birthday Celebration for Robert B. Mann*, Department of Physics and Astronomy, University of Waterloo, Waterloo, Canada (05-06 Dec 2015)
- "Dualities, Dimensions, and Uncertainties: A New Perspective on Quantum Black Holes", *Theory in Undergraduate Institutions 3*, Kavli Institute for Theoretical Physics, Santa Barbara, CA (22 Jun 2015)
- "The Large, the Small, and Things in Between: Generalized Uncertainty Principle Black Holes", Department of Physics, California State University, Fresno, CA (06 Feb 2015)
- "Self-Completeness and Thermodynamics of Generalized Uncertainty Principle Black Holes", Department of Physics and Astronomy, University of Sussex, Falmer, UK (15 May 2014)
- "Generalized Uncertainty Principle Black Holes," The London Relativity and Cosmology Seminar, Queen Mary University of London, UK (14 May 2014)
- "The Physics of Running," Department of Physics and Astronomy, Pomona College, Claremont, CA (25 Apr 2014)
- "Self-Completeness and the Generalized Uncertainty Principle," Perimeter Institute for Theoretical Physics, Waterloo, Canada (6 Mar 2014)
- "Black Hole Remnants: Why are these cold objects such a hot topic?" Department of Physics and Astronomy, University of Waterloo, Canada (5 Mar 2014)
- "Primordial Black Holes and Spontaneous Dimensional Reduction," Department of Mathematics and Statistics, UNB, Canada (17 Apr 2014)
- "Exact Thermodynamics of GUP Black Holes," Department of Mathematics and Statistics, University of New Brunswick, Canada (16 Apr 2014)

- “Spontaneous Dimensional Reduction: The route to quantum gravity?” Department of Physics, California State University Dominguez Hills, Carson, CA (09 May 2013)
- “Lower Dimensional Primordial Black Holes Remnants and Dark Matter,” Perimeter Institute for Theoretical Physics, Waterloo, ON, Canada (06 June 2012)
- “Ungravity: Theory and Phenomenology,” FIAS and Institute for Theoretical Physics, Goëthe University, Frankfurt am Main, Germany (10 May 2012)
- “The Phenomenology of Vanishing Dimensions,” Department of Physics, Brown University, Providence, RI (27 April 2011)
- “The Dimensions of Art,” Art Center College of Design, Pasadena, CA (03 March 2011)
- “Vanishing Dimensions: The return of lower-dimensional gravity,” *2010 West Coast Anacapa Society Workshop*, California State Polytechnic University, Pomona, CA (11 December 2010)
- “Self-Similar Clustering Analysis in Physics: From the Canvas to the Cosmos,” Department of Applied Mathematics, Michigan State University, East Lansing, MI (21 October 2010)
- “Fractal Aesthetics: The mathematics of beauty and the beauty of mathematics,” Department of Mathematics, Michigan State University, East Lansing, MI (21 October 2010)
- “The Phenomenology of Ungravity,” Department of Physics and Astronomy, University of Southern California, Los Angeles, CA (27 September 2010)
- “Ungravity: New physics from TeV to Mpc,” Department of Physics, SUNY Buffalo, Buffalo, NY (21 Sep 2010)
- “Fractal Aesthetics: Design Concepts from Art to Zuma,” Art Center College of Design, Pasadena, CA (07 July 2010)
- “New Directions in Entropic Gravity,” Department of Physics and Astronomy, University of Waterloo, Waterloo, ON, Canada (31 Mar 2010)

Contributed Talks at International Conferences (since 2010)

- “Sub-Planckian Black Holes and the Generalized Uncertainty Principle”, *International Conference on Black Holes*, Fields Institute, Toronto, ON, Canada (03 Jun 2015)
- “Sub-Planckian Black Holes and the Generalized Uncertainty Principle”, *Atlantic Gravity Meeting*, University of New Brunswick, Fredericton, NB, Canada (06 May 2015)
- “Sub-Planckian Black Holes and the Generalized Uncertainty Principle”, *31st Pacific Coast Gravity Meeting*, University of Oregon, Eugene, OR (13 Mar 2015)
- “Black Hole Production and Spontaneous Dimensional Reduction,” *16th Eastern Gravity Meeting*, University of Toronto, ON, Canada (07 June 2013)
- “No Black Holes at the LHC,” *Congress of the Canadian Association of Physicists*, Université de Montréal, QC, Canada (30 May 2013)
- “Gravitational Self-Completeness and/or Spontaneous Dimensional Reduction,” *Black Holes IX: Theory and Mathematical Aspects*, University of Saskatchewan, Saskatoon, SK, Canada (13 May 2013)

- “Primordial Black Holes in the Evolving Dimensions Framework,” *Black Holes VIII: Theory and Mathematical Aspects*, Niagara Falls, ON, Canada (11 May 2011)
- “Gravitational Wave Horizons in the Vanishing Dimensions Framework,” *27th Pacific Coast Gravity Meeting*, Caltech, Pasadena, CA (19 Mar 2011)
- “No Massless Particles in Entropic Gravity,” *CAP 2010: Congress of the Canadian Association of Physicists*, University of Toronto, Toronto, ON, Canada (07 Jun 2010)