Dr. Douglas Singleton

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California State University, Fresno
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EDUCATION

Ph.D.	Physics, University of Virginia (Theoretical Physics)	1994
M.A.	Physics, University of Virginia	1993
B.S.	Physics, M.I.T	1987

AFFLIATIONS/WORK EXPERIENCE

Assistant, Associate, Full Professor Department of Physics,
California State University, Fresno (Fall 1998 - Present)

Visiting Professor ICTP-SAIFR, Universidade Estadual Paulista, São Paulo, Brazil (2015&2016)

Visiting Professor Universidad Nacional Autónoma de México, Mexico (2014)

Visiting Professor Institut Teknologi Bandung, Indonesia (2013)

Visiting Professor Universität Potsdam, Germany (2012)

Visiting Professor Hue University, Hue Vietnam (Summer 2011)

Visiting Professor Peoples' Friendship University of Russia, Moscow (2009)

Visiting Professor Universidad de Costa Rica, Costa Rica, San Jose (2005)

Visiting Professor Peoples' Friendship University of Russia, Moscow (2004)

Lecturer (Fall 1995 - Summer 1998)
Department of Physics, Virginia Commonwealth University

Physics Instructor (Spring 1994) Saint Anne's Belfield School, Charlottesville, Virginia

Teaching Assistant/Research Associate - Doctoral Program (1988-1993)
Department of Physics, University of Virginia

AREAS OF EXPERTISE

Theoretical particle physics; classical and quantum field theory; classical and quantum gravity; high energy theory.

GRANTS AND AWARDS

- 2nd Place Award in the 2022 Gravity Research Foundation Essay Contest
- Six "Honorable Mentions" Gravity Research Foundation Essay Contest 2020, 2018, 2016, 2015, 2012, 2008
- 4th Place Award in the FQXi Essay Contest "It from Bit or Bit from It?" 2013
- American Physical Society's International Travel Grant 2012
- DAAD (Deutscher Akademischer Austausch Dienst – German Academic Exchange Office) Grant 2012
- Four Fulbright Scholar Grants: 2015-2016 (Brazil); 2012-2013 (Indonesia); 2008-2009 (Russia); 2003-2004 (Russia)
- MDPI Outstanding Reviewer Award for *Universe* 2018
- IOP Outstanding Reviewer Award for *New Journal of Physics* 2016
- Distinguished Referee Award for *Europhysics Letters* 2012, 2016
- Provost Award for Research and Scholarly Activity 2006
- COBASE grant (National Research Council) with Merab Gogberashvili 2003
- COBASE grant (National Research Council) with Vladimir Dzhunushaliev 1998

SERVICE AND SOCIETY MEMBERSHIP

- APS Committee: Prize for a Faculty Member for Research in an Undergraduate Institution 2016-2017
- Chair's Line Executive Committee of the American Physical Society California-Nevada-Hawaii section four year term (2012-2016).
- Department Chair, California State University, Fresno Physics Department (2008-2012) and (2018-present).
- Member of American Physical Society (1998 – present).
- Member of European Physics Society (2012 – present)
- Society of Physics Students Advisor at CSU Fresno (2000 – present).
- Society of Physics Students National Council Zone Councilor for Zone 18 (2009-2011).
- Review Editor, "Frontiers in Physics" Mathematical Physics (2016-present)

- Editorial Board, "Universe" (2017-present)

- Referee for Physics Letters B, Physical Review Letters, International Journal Theoretical Physics, European Journal of Physics C, International Journal of Modern Physics A and D, American Journal of Physics, Classical and Quantum Gravity, Foundations of Physics.

PUBLICATIONS

1. Laurenţiu Bubuianu, Douglas Singleton, and Sergiu.I. Vacaru, "Nonassociative black holes in R-flux deformed phase spaces and relativistic models of Perelman thermodynamics", (*JHEP **2305**, 057 (2023)*)

2. Ray Chiao, Harry Hart, Michael Scheibner, Jay Sharping, Nader Inan, Douglas Singleton, and Michael Tobar "Energy level shift of quantum systems via the scalar electric Aharonov-Bohm effect" (*Phys. Rev. A **107**, 042209 (2023)*).

3. Eduardo Guendelman and Douglas Singleton, "Momentum Gauge Fields and Non-Commutative Space–Time" (*Symmetry **15**, 126 (2023)*).

4. Michael Bishop, Joey Contreras, and Douglas Singleton, "The more things change the more they stay the same: Minimum lengths with unmodified uncertainty principle and dispersion relation", (*Int. J. of Mod. Phys. D **31**, 2241001 (2022)*) 2nd place GRF essay contest 2022.

5. Michael Bishop, Joey Contreras, Peter Martin, and Douglas Singleton, "Comments on the cosmological constant in generalized uncertainty models", (*Front. Astron. Space Sci. **9**, 978898 (2022)*).

6. Michael Bishop, Joey Contreras, and Douglas Singleton, "A Subtle Aspect of Minimal Lengths in the Generalized Uncertainty Principle" (*Universe **8**, 192 (2022)*).

7. Michael Dunia, Tim Evans and Douglas Singleton, "Comment on `Massive electrodynamics and the magnetic monopoles'" (*Phys. Rev. D **103**, 026012 (2021)*).

8. Michael Bishop, Joey Contreras, Jaeyeong Lee, and Douglas Singleton, "Reconciling a quantum gravity minimal length with lack of photon dispersion", (*Phys. Lett. B **816**, 136265 (2021)*).

9. Douglas Singleton, "Non-Abelian Firewall", *(Int. J. Mod. Phys. D **29**, 2043003 (2020)*) "Honorable Mention" GRF essay contest 2020.

10. Krishnakanta Bhattacharya, Bibhas Ranjan Majhi, and Douglas Singleton, "Fluid-gravity correspondence in the scalar-tensor theory of gravity: (in)equivalence of Einstein and Jordan frames", (*JHEP **2007**, 018 (2020)*)

11. Michael Bishop, Jaeyeong Lee, and Douglas Singleton, "Modified commutators are not sufficient to determine a quantum gravity minimal length scale", (*Phys. Lett. B **802**, 135209 (2020)*).

12. Preston Jones and Douglas Singleton, "Interaction between gravitational radiation and electromagnetic radiation", (*Int. J. Mod. Phys. D **28**, 1930010 (2019)* **Review Article**)

13. M. Bishop, E. Aiken, and D. Singleton, "Modified Commutation Relationships from the Berry-Keating Program", *(Phys. Rev. D **99**, 026012 (2019)*).

14. P. Jones, A. Gretarsson, and D. Singleton, "Gravity's Light in the Shadow of the Moon", *(Int. J. Mod. Phys. D **27**, 1847021 (2018)*) "Honorable Mention" GRF essay contest 2018.

15. J.A.S. Lima and D. Singleton, "Matter–antimatter asymmetry and other cosmological puzzles via running vacuum cosmologies", *(Int. J. Mod. Phys. D **27**, 1843016 (2018)*)

16. John Scott, Timothy J. Evans, Douglas Singleton, Vladimir Dzhunushaliev, and Vladimir Folomeev, "Dirac and non-Dirac conditions in the two-potential theory of magnetic charge", (*Eur. Phys. J. C **78**, 382 (2018)*)

17. Timothy J. Evans and Douglas Singleton, "Magnetic Charge and Photon Mass: Physical String Singularities, Dirac Condition, and Magnetic Confinement", *(Int. J .Mod. Phys. A **33**, 1850064 (2018)*).

18. Preston Jones, Patrick McDougall, Michael Ragsdale, and Douglas Singleton, "Scalar field vacuum expectation value induced by gravitational wave background", (*Phys. Lett. B **781**, 621 (2018)*).

19. Piero Nicolini, Douglas Singleton, Shingo Takeuchi, Matthew J. Lake, and Vladimir Dzhunushaliev (editors) Proceedings for IF-YITP GR+HEP+Cosmo International Symposium VI, 3–5 August 2016, Naresuan University, Thailand (*J. Phys.: Conf. Ser. 883 011001 (2017)* ; http://iopscience.iop.org/issue/1742-6596/883/1)

20. D. Wulandari, Triyanta, J. S. Kosasih, D. Singleton, and P. Jones, "Localization of interacting fields in five-dimensional braneworld models", *(Int. J .Mod. Phys. A **32**, 1750191 (2017)*).

21. P. Jones, A. Gretarsson, and D. Singleton, "Low frequency electromagnetic radiation from gravitational waves generated by neutron stars", *(Phys. Rev. D **96**, 124030 (2017)*).

22. J.A.S. Lima and D. Singleton, "Matter–antimatter asymmetry induced by a running vacuum coupling", *(Eur. Phys. J. C **77**, 855 (2017)*).

23. M. Ragsdale and D. Singleton, "Schwinger effect for non-Abelian gauge bosons", *(J. Phys. Conf. Ser. **883**, 012014 (2017)*).

24. Preston Jones, Patrick McDougall, and Douglas Singleton, "Particle Production in a Gravitational Wave Background", *(Phys. Rev. D **95**, 065010 (2017)*).

25. J.A.S Lima and Douglas Singleton, "The Impact of Particle Production on Gravitational Baryogenesis", (*Phys. Lett. B **762**, 506 (2016)*).

26. Ryan Andosca and Douglas Singleton, "Time Dependent Electromagnetic Fields and 4d Stokes' Theorem", (*Am. J. Phys. **84**, 848 (2016)*).

27. Douglas Singleton and Steve Wilburn, "Global versus local — Mach's principle versus the equivalence principle", (*Int. J. Mod. Phys. D **25**, 1644009 (2016)*) "Honorable Mention" GRF essay contest 2016.

28. Vladimir Dzhunushaliev, Vladimir Folomeev, Arislan Makhmudov, Ainur Urazalina, Douglas Singleton, and John Scott, "Compact and extended objects from self-interacting phantom fields", *(Phys. Rev. D **94**, 024004 (2016)*).

29. Douglas Singleton and Jaryd Ulbricht, "Time-dependent Aharonov-Casher effect", (*Phys. Lett. B **753**, 91 (2016)*).

30. Preston Jones and Douglas Singleton, "Gravitons to Photons – Attenuation of Gravitational Waves", (*Int. J. Mod. Phys. D **24**, 1544017 (2015)*) "Honorable Mention" GRF essay contest 2015.

31. Max Bright, Douglas Singleton and Atsushi Yoshida, "Aharonov-Bohm Phase for Electromagnetic Wave Background", (*Eur. Phys. J. C **75**, 446 (2015)*)

32. James Macdougall, Douglas Singleton, and Elias C. Vagenas, "Revisiting the Marton, Simpson, and Suddeth experimental confirmation of the Aharonov-Bohm effect", (*Phys. Lett. A **379**, 1689 (2015)*)

33. Douglas Singleton, Nader Inan, and Raymond Y. Chiao, "Neutrino induced decoherence and variation in nuclear decay rates", (*Phys. Lett. A **379**, 941 (2015)*)

34. Max Bright and Douglas Singleton, "Time-dependent non-Abelian Aharonov-Bohm effect", (*Phys.Rev. D **91**, 085010 (2015)*)

35. Sujoy K. Modak and Douglas Singleton, "Baryogenesis via Hawking-like Radiation in the FRW Space-time", (*Eur. Phys. J. C **75**, 200 (2015)*)

36. E. T. Akhmedov, S. Minter, P. Nicolini, and D. Singleton (guest editors) "Experimental Tests of Quantum Gravity and Exotic Quantum Field Theory Effects" (*Advances in High Energy Physics*, Vol. 2014 (2014), Article ID 192712 http://dx.doi.org/10.1155/2014/192712)

37. Piero Nicolini and Douglas Singleton, "Connecting horizon pixels and interior voxels of a black hole", (*Phys. Lett. B **738**, 213 (2014)*)

38. Eduardo I. Guendelman and Douglas Singleton, "Scalar gauge fields", (*JHEP **1405**, 096 (2014)*)

39. J. MacDougall and D. Singleton, "Stokes' Theorem, Gauge Symmetry and the Time-Dependent Aharonov-Bohm Effect" (*J. Math. Phys. **55**, 042101 (2014)*)

40. S. Modak and D. Singleton, "Reply to Comment on 'Inflation with a Graceful Exit and Entrance Driven by Hawking Radiation'", (*Phys. Rev. D **89**, 068302 (2014)*)

41. D. Singleton, E.C. Vagenas, and T. Zhu, "Self-similarity, conservation of entropy/bits and the black hole information puzzle", (*JHEP **1405**:074 (2014)*) 4th Place Essay in FQXi "It from Bit or Bit from It?" essay contest 2013.

42. P. Jones, G. Munoz, D. Singleton and Triyanta, "Field localization and Nambu Jona-Lasinio mass generation mechanism in an alternative 5-dimensional brane model", (*Phys. Rev. D **88**, 025048 (2013)*)

43. H-J Schmidt and D. Singleton, "Exact radial solution in 2+1 gravity with a real scalar field" (*Phys. Lett. B **721**, 294 (2013)*)

44. D. Singleton and E. Vagenas, "The covariant, time-dependent Aharonov–Bohm effect" (*Phys. Lett. B **723**, 241 (2013)*)

45. H-J Schmidt and D. Singleton, "Isotropic universe with almost scale-invariant fourth-order gravity", (*J. Math. Phys. **54**, 062502 (2013)*)

46. C. Kaeonikhom, D. Singleton, S.V. Sushkov, and N. Yongram, "Dynamics of Dirac-Born-Infeld Dark Energy Interacting with Dark Matter", (*Phys. Rev. D **86**, 124049, (2012)*)

47. S. Modak and D. Singleton, "Inflation with a Graceful Exit and Entrance Driven by Hawking Radiation", (*Phys. Rev. D **86**, 123515, (2012)*)

48. A. Zampeli, D. Singleton, and E.C. Vagenas, "Hawking Radiation, Chirality, and the Principle of Effective Theory of Grvaity", (*JHEP **1206**:097 (2012)*)

49. S. Modak and D. Singleton, "Hawking Radiation as a Mechanism for Inflation", (*Int. J. Mod. Phys. D **21**, 1242020 (2012)*) "Honorable Mention" in 2012 GRF essay contest.

50. E. Guendelman, D. Singleton, and N. Yongram, "A Two Measure Model of Dark Energy and Dark Matter", (*JCAP, **1211**, 044 (2012)*) TOPCITE 50+

51. N. Rad and D. Singleton, "A Test of the Circular Unruh Effect Using Atomic Electrons", (*Eur. Phys. J. D **66**, 258 (2012)*)

52. D. Singleton and S. Wilburn, "Reply to Comment on 'Hawking Radiation, Unruh Radiation, and the Equivalence Principle'", (*Phys. Rev. Lett. **108**, 049002 (2012)*)

53. V. Folomeev and D. Singleton, "Relativistic Polytropic Spheres Embedded in a Chameleon Scalar Field", (*Phys. Rev. D **85**, 064045, (2012)*)

54. Emil Akhmedov, Pavel Buividovich and Douglas Singleton, "De Sitter space and perpetuum mobile" (*Phys. Atom. Nucl. **75**, 525 (2012)*) TOPCITE 50+

55. V. Dzhunushaliev, V. Folomeev, and D. Singleton, "Chameleon Stars" (*Phys. Rev. D **84**, 084025, (2011)*)

56. D. Singleton and S. Wilburn, "Hawking radiation, Unruh radiation and the equivalence principle", (*Phys. Rev. Lett. **107**, 081102 (2011)*) TOPCITE 50+

57. M. Duncan, R, Myrzakulov, and D. Singleton, "Entropic derivation of F=ma for circular motion", (*Phys. Lett. B **703**, 516 (2011)*)

58. S. Mamedov, D. Singleton, and S. Turkoz, "Energy Spectrum of Simply Constant Chromoelectric Flux Tubes", (*Int. J. Theo. Phys. **50**, 1819 (2011)*)

59. V. Dzhunushaliev, V. Folomeev, D. Singleton and R. Myrzakulov, "On the stability of spherically symmetric and wormhole solutions supported by the sine-Gordon ghost scalar field", (*Phys. Rev. D **82**, 045032, (2010)*)

60. V.E. Akhmedova, T. Pilling, A. de Gill, and D. Singleton, "Tunneling/WKB and Anomaly Methods for Rindler and de Sitter Space-times" (*Theo. Math. Phys. **163**, 774 (2010)*)

61. D. Singleton, E.C. Vagenas, T. Zhu and J. Ren, "Insights and possible resolution to the information loss paradox via the tunneling picture", (*JHEP **1008**:089 (2010)*) TOPCITE 50+

62. T. Zhu, J. Ren and D. Singleton, "Hawking-like radiation as tunneling from the apparent horizon in a FRW Universe" (*Int. J. Mod. Phys. D **19**, 159 (2010)*)

63. M. Gogberashvili, and D. Singleton, "Anti-de-Sitter Island-Universes from 5D Standing Waves" (*Mod. Phys. Lett. A **25**, 2131 (2010)*)

64. V. Akhmedova, T. Pilling, A. de Gill, and D. Singleton, "A WKB-like approach to Unruh Radiation", (*Am. J. Phys. **78**, 685 (2010)*)

65. M. Gogberashvili, S. Myrzakul and D. Singleton, "Standing gravitational waves from domain walls", (*Phys. Rev. D **80**, 024040 (2009)*)

66. V. Akhmedova, T. Pilling, A. de Gill, and D. Singleton, "Comments on anomaly versus WKB/tunneling methods for calculating Unruh radiation, (*Phys. Lett. B **673**, 227 (2009)*) TOPCITE 100+

67. E. T. Akhmedov, T. Pilling and D. Singleton, "Subtleties in the quasi-classical calculation of Hawking radiation, (*Int. J. Mod. Phys. D **17**, 2453 (2008)*) "Honorable Mention" GRF essay contest 2008. TOPCITE 100+

68. V. Dzhunushaliev, V. Folomeev, R. Myrzakulov and D. Singleton, "Non-singular solutions to Einstein-Klein-Gordon equations with phantom scalar field", (*JHEP **0807:**094 (2008)*)

69. V. Akhmedova, T. Pilling, A. de Gill and D. Singleton, "Temporal contribution to gravitational WKB-like calculations", (*Phys. Lett. B **666**, 269 (2008)*) TOPCITE 100+

70. M. Chaves and D. Singleton, "A Unified Model of Phantom Energy and Dark Matter", (*SIGMA **4**, 009 (2008)*)

71. V. Dzhunushaliev, V. Folomeev, D. Singleton and S. Aguilar-Rudametkin, "6D thick branes from interacting scalar fields", (*Phys. Rev. D **77**, 044006 (2008)*) TOPCITE 50+

72. P. Jones, G. Muñoz, M. Ragsdales, and D. Singleton, "The general relativistic infinite plane", (*Am. J. Phys. **76**, 73 (2008)*)

73. E.T. Akhmedov and D. Singleton, "On the Physical Meaning of the Unruh Effect", (*JETP Lett. **86,** 702 (2007)*) TOPCITE 50+

74. E.T. Akhmedov and D. Singleton, "On the relationship between Unruh and Sokolov-Ternov effects", (*Int. J. of Mod. Phys. **A22,** 4797 (2007)*) TOPCITE 50+

75. M. Gogberashvili, P. Midodashvili and D. Singleton, "Fermion generations from `apple-shaped` extra dimensions", (*JHEP **0708:**033 (2007)*) TOPCITE 50+

76. E.T. Akhmedov, V. Akhemedova, D. Singleton and T. Pilling, "Thermal radiation of various gravitational backgrounds", (*Int. J. of Mod. Phys. **A22,** 1705 (2007)*) TOPCITE 100+

77. J. Dryzek and D. Singleton, "Test of the second postulate of special relativity using positron annihilation", (*Am. J. Phys. **75**, 713 (2007)*)

78. M. Chaves and D. Singleton, "Phantom Energy from Graded Algebras", (*Mod. Phys. Lett. A **22**, 29 (2007)*)

79. E.T. Akhmedov, V. Akhemedova and D. Singleton, "Hawking temperature in the tunneling picture", (*Phys. Lett. B **642**, 124 (2006)*) TOPCITE 250+

80. S. Aguilar and D. Singleton, "Fermion generations, masses, and mixings in a 6D brane model", (*Phys. Rev. D **73**, 085007 (2006)*)

81. I.S. Goncharenko, V. Ivashchuk, S. Rudametkin-Aguilar, and D. Singleton, "Electric S-brane Solutions with a Parallel Charge Density Form on a Ricci-flat Factor Space", (*Grav. Cosmol. **12,** 169 (2006)*)

82. V. Ivashchuk, V.N. Melnikov, and D. Singleton, "Electric S-brane Solutions with Parallel Forms on a Ricci-flat Factor Space", (*Grav. Cosmol. **12,** 314 (2006)*)

83. J. Dryzek and D. Singleton, "Implantation profile and linear absorption coefficients for positrons injected in solids from radioactive sources ^{22}Na and ^{68}Ge/^{68}Ga", (*Nucl. Instrum. Meth. B **252**, 197 (2006)*)

84. J. Dryzek, D. Singleton, T. Suzuki, and R. Yu, "An Undergraduate Experiment to Test Relativistic Kinematics Using In Flight Positron Annihilation", (Am. J. Phys. 74, 49 (2006))

85. V.D. Ivashchuk, V.N. Melnikov and D. Singleton, "Avoiding Cosmological Oscillating behavior for S-brane Solutions with Diagonal Metrics", (*Phys. Rev. D **72**, 103511 (2005)*)

86. V. Dzhunushaliev D. Singleton, and D. Dhokarh, "Effective Abelian-Higgs Theory from SU(2) Gauge Field Theory", (*Int. J. Mod. Phys. A **20**, 3481 (2005)*)

87. D. Singleton, "Gravitational Trapping Potential with Arbitrary Extra Dimensions", (*Phys. Rev. D **70,** 065013 (2004)*)

88. V. Ivashchuk and D. Singleton, "Composite electric S-brane solutions with maximal number of branes", (*JHEP **0410:** 061 (2004)*)

89. M.Gogberashvili and D.Singleton, "Brane in 6D with increasing gravitational trapping potential", (*Phys. Rev. D **69**, 026004 (2004)*) TOPCITE 50+

90. D. Singleton, A. Kato, and A. Yoshida "Gauge Procedure with Gauge Fields of Various Ranks", (*Phys. Lett. A **330**, 326 (2004)*).

91. M.Gogberashvili and D.Singleton, "Nonsingular Increasing Gravitational Potential for the Brane in 6D", (*Phys. Lett. B **582**, 95 (2004)*).

92. V. Dzhunushaliev and D. Singleton, "Ginzburg-Landau Equations from from SU(2) Gauge Field Theory", (*Mod. Phys. Lett. A **18**, 955 (2003)*).

93. V. Dzhunushaliev and D. Singleton, "Monopoles in Lattice QCD with Abelian Projection as Quantum Monopoles", (*Hadronic J. **26**, 539 (2003)*).

94. V. Dzhunushaliev and D. Singleton, "Effective 't Hooft-Polyakov Monopoles from Pure SU(3) Gauge Theory", (*Mod. Phys. Lett. A **18**, 2873 (2003)*).

95. A. Kato, G. Muñoz, D. Singleton, J. Dryzek, and V. Dzhunushaliev, "Field Angular Momentum", (*Found. Phys. **33**, 769 (2003)*).

96. D. Singleton, and A. Yoshida, "A Schwarzschild-like Model for Baryons", (*Found. Phys. Letts. **15**, 263 (2002)*).

97. J. Dryzek, A. Kato, G. Muñoz, and D. Singleton, "Electrons as quasi-bosons in magnetic white dwarfs", (*Int. J. Mod. Phys. D **11**, 417 (2002)*).

98. D. Singleton, "Magnetic Charge and Other Exotic Field Configurations" , (*Hadronic J. Suppl. **17**, 52 (2002)*).

99. Sergiu I. Vacaru and D. Singleton, "Ellipsoidal, cylindrical, bipolar and toroidal wormholes in 5D gravity", (*J. Math. Phys. **43**, 2486 (2002)*).

100. Sergiu I. Vacaru and D. Singleton, "Warped, anisotropic wormhole/soliton configurations in Vacuum 5D gravity", (*Class. Quant. Grav. **19**, 2793 (2002)*).

101. Sergiu I. Vacaru and D. Singleton, "Warped solitonic deformations and propagation of black holes in 5D vacuum gravity", (*Class. Quant. Grav.* ***19****, 3583 (2002)*).

102. V. Dzhunushaliev and D. Singleton, "Algorithmic Complexity in Cosmology and Quantum Gravity", (*Entropy* ***4****, 3 (2002)*).

103. V. Dzhunushaliev and D. Singleton, "London's equation from Abelian projection", (*Phys. Rev. D* ***65****, 125007 (2002)*).

104. V. Dzhunushaliev and D. Singleton, "Quantizationof Classical Singular Solutions in Yang-Mills Theory", (*Nuovo Cim. B* ***117****, 137 (2002)*).

105. A. Kato and D. Singleton, "Gauging dual symmetry", (*Int. J. Theo. Phys.* ***41****, 1563 (2002)*).

106. Sergiu I. Vacaru, D. Singleton, Vitalie A. Botan, and Denis A. Dotenco, "Locally Anisotropic Wormholes and Flux Tubes in 5D Gravity", (*Phys. Lett. B* ***519****, 249 (2001)*).

107. D. Singleton, "Glueball Spin", (*Mod. Phys. Lett. A* ***16****, 41 (2001)*).

108. V. Dzhunushaliev and D. Singleton, "Non-differentiable degrees of freedom: fluctuating metric signature", (*Class. Quant. Grav.,* ***18****, 1787 (2001)*).

109. D. Singleton and V. Dzhunushaliev, "Orbital and field angular momentum in the nucleon", (*Found. Phys.* ***30****, 1093 (2000)*).

110. D. Singleton and J. Dryzek , "Electromagnetic-field angular momentum in condensed matter systems", (*Phys. Rev. B* ***62****, 13070 (2000)*).

111. V. Dzhunushaliev U. Kasper and D. Singleton, "Gravitational flux tubes", (*Phys. Lett. B* ***479****, 249 (2000)*).

112. V. Dzhunushaliev and D. Singleton, "Experimental Test for Extra Dimensions in Kaluza-Klein Gravity", (*Gen. Rel. Grav.* ***38****, 271 (2000)*).

113. J. Dryzek and D. Singleton, "Field angular momentum in atomic sized systems", (*Am. J. Phys.* ***67****, 930 (1999)*).

114. V. Dzhunushaliev and D. Singleton, "Einstein-Cartan-Heisenberg theory of gravity with dynamical torsion", (*Phys. Lett. A* ***257****, 7 (1999)*).

115. V. Dzhunushaliev and D. Singleton, "Wormholes and flux tubes in 5D Kaluza-Klein theory", (*Phys. Rev. D* ***59****, 064018 (1999)*). TOPCITE 50+

116. V. Dzhunushaliev and D. Singleton, "Quantization of Spherically Symmetric Solution of SU(3) Yang-Mills Theory", (*Int. J. Theo. Phys.* ***38****, 2175 (1999)*).

117. V. Dzhunushaliev and D. Singleton, "Quantization of Strongly Interacting Fields" (*Int. J. Theo. Phys.* ***38****, 887 (1999)*).

118. V. Dzhunushaliev and D. Singleton, "Flux tube solutions in Kaluza-Klein theory", (*Class. Quant. Grav.* ***16****, 973 (1999)*).

119. D. Singleton, "General relativistic analog solutions for Yang-Mills theory" (*Theo. Math. Phys.* ***117****, 1351 (1998)*).

120. D. Singleton, "Electromagnetic Fields Field Angular Momentum and Quantum Mechanics", (*Am. J. Phys.* ***66****, 697 (1998)*).

121. D. Singleton, "Electromagnetic contribution to the nucleon spin" (*Phys. Lett. B* ***427****, 155 (1998)*).

122. D. Singleton, "Infinite energy dyon-like solutions for Yang-Mills-Higgs theory" (*Int. J. Theo. Phys.* ***36****, 1857 (1997)*).

123. D. Singleton and A. Yoshida, "Increasing potentials in non-Abelian and Abelian gauge theories", (*Int. J. of Mod. Phys. A* ***12****, 4823 (1997)*).

124. D. Singleton, "Axially symmetric solutions for SU(2) Yang-Mills theory" (*J. Math. Phys.* ***37****, 4574 (1996)*).

125. D. Singleton, "Does magnetic charge imply a massive photon?" (*Int. J. Theo. Phys.* ***35*** *, 2419 (1996)*).

126. D. Singleton, "Yang-Mills Inspired Solutions for General Relativity", (*Phys. Letts. A* ***223****, 12 (1996)*).

127. D. Singleton, "Singular Minkowski and Euclidean Solutions for SU(2) Yang-Mills theory", (*Nuovo Cim. A* ***109,*** *169 (1996)*).

128. D. Singleton, "Exact Schwarzschild-like solution for SU(N) gauge theory", (*Z. Phys. C* ***72****, 525 (1996)*).

129. D. Singleton "Electromagnetism with magnetic charge and two photons", (*Am. J. Phys.* ***64,*** *452 (1996)*).

130. D. Singleton, "Exact Schwarzschild-like solution for Yang-Mills theories" , (*Phys. Rev. D* ***51****, 5911 (1995)*).

131. D. Singleton, "Topological Electric Charge" (*Int. J. Theo. Phys.* ***34,*** *2453 (1995)*).

132. D. Singleton, "Magnetic charge as a hidden gauge symmetry", (*Int. J. Theo. Phys.* ***34,*** *37 (1995)*).

133. P.Q. Hung, R. McCoy, D. Singleton, "Negative δρ with four families in the Standard Model", (*Phys. Rev. D* ***50****, 2082 (1994)*).

TALKS/PRESENTATIONS

- "Reconciling a quantum gravity minimal length with lack of photon dispersion" APS April Meeting, Virtual April 2021.
- "Non-Abelian Firewall", 37th Pacific Coast Gravity Meeting, University of Arizona Virtual, March 26th -27th, 2021

- "Gravitational Waves", San Diego State University Colloquium, March 19th, 2021
- "Damour-Navier-Stokes equation for scalar-tensor theory of gravity – Einstein vs. Jordan frames", The 1st Electronic Conference on Universe, Virtual February 22nd -28th, 2021
- "The time-independent and time-dependent Aharonov-Bohm Effect", University of Lethbridge Colloquium February 2nd, 2021
- "Modified Commutators vs. Modified Operators in a Quantum Gravity Minimal Length Scale", Application of Mathematics in Technical and Natural Sciences, Albena, Bulgaria (Virtual) June 29, 2020
- "Modified Commutation Relationships via the Riemann Hypothesis" APS April Meeting, Denver, CO April 2019.
- "Modified Commutation Relationships via the Riemann Hypothesis" Dual CP Comala, Colima, MX January 2019.
- "Production and potential detection of electromagnetic radiation from gravitational waves", Research Talk, Universidad de Colima, Colima MX, August 2018
- "The Mysterious Dark Matter and Dark Energy in our Cosmos", Physics Colloquium, Universidad de Colima, Colima MX, August 2018
- "Gravitational Waves: A New Window on the Universe", Physics Colloquium CSU Stanislaus, Turlock, CA, February 2018.
- "Production and potential detection of low frequency electromagnetic radiation from gravitational waves", Physics Colloquium, Embry-Riddle University, Prescott, AZ, November 2017
- "Higgs-like effect and particle production induced by gravitational wave background", APS Far West Section Meeting 2017, UC Merced, Merced CA November 2017
- "Matter-Antimatter Asymmetry Induced by a Running Vacuum Coupling", 33rd Pacific Coast Gravity Meeting, Santa Barbara, CA March 2017.
- "Hawking-like radiation model for inflation and baryogenesis", Xth International Conference on the Interconnection between Particle Physics and Cosmology (PPC 2016) São Paulo, Brazil July 2016
- "A Hawking-like radiation model for inflation and baryogenesis", Physics Colloquium Universidade de São Paulo, São Paulo, Brazil June 2016.
- "Connecting horizon pixels and interior voxels of a black hole", 32nd Pacific Coast Gravity Meeting, Fullerton, CA April 2016.
- "Aharonov-Bohm phase for an electromagnetic wave background", Physics Colloquium Universidade de São Paulo, São Paulo, Brazil August 2015.

- "Hawking radiation inspired toy model for inflation and baryogenesis", Quantum Fields and IR Issues in de Sitter Space , Natal, Brazil July 2015
- "The time-dependent Aharonov-Bohm effect", Physics Colloquium University of Arizona, University of Arizona, Tucson, AZ September 2014
- "The Aharonov–Bohm effect with time dependent fields", Physics Colloquium at UNAM, Universidad Nacional Autónoma de México, Mexico City, Mexico June 2014
- "The covariant, time-dependent Aharonov–Bohm effect", APS Division of Particles and Fields 2013, UCSC, Santa Cruz CA August 2013
- "The time-dependent Aharonov-Bohm effect", APS CA-NV 2013 Section Meeting, SSU, Sonoma CA November 2013
- Colloquium talk at ITB "Introduction to Dark Energy", Colloquium Talk for the Physics Department, Institut Teknologi Bandung, Bandung, Indonesia, January 28th, 2013
- Contributed conference talk "Hawking radiation as a mechanism for inflation", Fulbright Enrichment Workshop, Bangkok, Thailand, March 7th -8th, 2013
- Colloquium talk at ITB "Hawking radiation and inflation", Colloquium Talk for the Astronomy Department, Institut Teknologi Bandung, Bandung, Indonesia, March 22nd, 2013
- *Keynote Talk* "International Research in Physics – Some Personal Examples", DAAD Alumni-Treffen RISE Weltweit 2012, KIT Karlsruhe, Germany November 2012
- "Possible Tests of the Unruh Effect", Frankfurt Institute of Advanced Study Colloquium Series, Frankfurt, Germany October 2012
- Contributed conference talk "Hawking radiation as a mechanism for inflation", Multicosmofun '12, Szczecin. Poland, September 10th -14th, 2012
- "AdS Island Universes from Standing Waves", 28th Pacific Coast Gravity Meeting , UCSB, Santa Barbara, CA March 2012
- "A test of the (circular) Unruh effect using atoms", APS CA-Section Meeting 2011, Stanford/SLAC, CA November 2011
- "Introduction to Dark Energy", BCVSPIN 2011, Hue University, Vietnam July 2011
- "Eternal Radiation and de Sitter Space" APS April Meeting, Anaheim CA, May 2011
- "Hawking Radiation, Unruh Radiation and the Equivalence Principle", 27th Pacific Coast Gravity Meeting, CalTech, Pasadena, CA March 2011
- "Insights and Possible Resolution to the Information Loss Puzzle in the Tunneling Picture", APS California Section Meeting 2010, CalTech, Pasadena, CA November 2010
- "Hawking-like radiation in a FRW Universe", 26th Pacific Coast Gravity Meeting, UC San Diego, CA March 2010
- "Standing Gravitational Waves from Domain Walls", APS California Section Meeting 2009, Naval Postgraduate School, Monterey, CA November 2009

- *Plenary Lecture* "Anomaly versus WKB/tunneling methods for calculating Unruh radiation", The 4th Siam Symposium on GR+HEP+COSMO, Phitsanulok, Thailand 2009
- "Hawking-like radiation as tunneling from the apparent horizon in a FRW Universe", Invisible Universe International Conference, Paris, France July 2009
- "Subtleties in the Quasi-Classical Calculation of Hawking Radiation", Frontiers in Black Hole Physics as Dubna, Dubna, Russia May 2009
- "Comments on anomaly versus WKB methods for calculating Unruh radiation", String Field Theory and Related Aspects 2009, Moscow, Russia April 2009
- "Phantom energy from graded algebras", Symmetry 2007, Kyiv, Ukraine June 2007
- "Hawking and Unruh Radiation as Tunneling", 22nd Pacific Coast Gravity Meeting, CalTech Pasadena, CA March 2007
- "Relationship between Unruh and Sokolov-Ternov effects", APS, California Section Meeting LBNL Berkeley, CA October 2007
- "Avoiding cosmological chaos with S-branes", Quarks2006, Repino, Russia May 2006
- "Thermal radiation from various gravitational backgrounds", APS/DPF/JPS 2006, Honolulu, Hawaii November 2006
- "Avoiding Cosmological Oscillating behavior for S-brane Solutions with Diagonal Metric" 22nd Pacific Coast Gravity Meeting, UC Santa Barbara, CA March 2006
- "An Introduction to Large Extra Dimensions", Physics Colloquium Universidad de Costa Rica, San Jose, Costa Rica May 2005
- "Composite Electric S-Brane Solutions", 12th Russian Gravitational Conference, Kazan, Russia June 2005
- "Fermions Generations in 6D Brane World", PIRT 2005, Moscow, Russia July 2005
- "Ginzburg-Landau Equations from SU(2) Gauge Field Theory", APS/DPF 2004, Riverside, CA August 2004
- "6D brane with gravitational trapping potential", Gamov Memorial International Conference, Odessa, Ukraine August 2004
- "Composite Electric S-branes with Maximal Charge Densities", XXVIII International Workshop Blackholes on Earth and in Space, Protvino, Russia June 2004
- "Alternative Gauge Procedure for fields of various ranks", Symmetry 2003, Kyiv, Ukraine June 2003
- "Electrons as Quasi-bosons in Magnetic White Dwarfs", Quarks2002, Vladai/Novgorod, Russia June 2002
- "Wormhole toy model of fermions", 18th Pacific Coast Gravity Meeting, Davis, CA March 2002
- "Field angular momentum", Zacatecas Forum in Physics, Zacatecas, Mexico May 2002

- "Magnetic charge and other exotic field configurations", Summer School in Theoretical Physics, Zacatecas, Mexico August 2000
- "Field angular momentum from subnuclear to atomic scales", Lorentz Group, CPT, and Neutrinos, Zacatecas, Mexico June 1999
- "Wormholes and flux tubes in Kaluza-Klein theory", APS/DPF 1999, Los Angeles CA, January 1999
- "Magnetic charge as a gauge symmetry" California State University, Fresno, research talk, Fresno CA, April 1998
- "Exact, Schwarzschild-like solution for Yang-Mills theory" APS/AAPT Joint meeting, Washington, D.C., April 1995