

Burt A Ovrut

List of Publications by Year in descending order

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129
papers

8,049
citations

46918

47
h-index

46693

89
g-index

130
all docs

130
docs citations

130
times ranked

5216
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Ekpyrotic universe: Colliding branes and the origin of the hot big bang. <i>Physical Review D</i> , 2001, 64, . | 1.6 | 1,150 |
| 2 | From big crunch to big bang. <i>Physical Review D</i> , 2002, 65, . | 1.6 | 485 |
| 3 | Universe as a domain wall. <i>Physical Review D</i> , 1999, 59, . | 1.6 | 472 |
| 4 | Supersymmetric extension of the $SU(3)\tilde{\times}SU(2)\tilde{\times}U(1)$ model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1982, 113, 175-179. | 1.5 | 467 |
| 5 | Heterotic M-theory in five dimensions. <i>Nuclear Physics B</i> , 1999, 552, 246-290. | 0.9 | 334 |
| 6 | New ekpyrotic cosmology. <i>Physical Review D</i> , 2007, 76, . | 1.6 | 264 |
| 7 | Density perturbations in the ekpyrotic scenario. <i>Physical Review D</i> , 2002, 66, . | 1.6 | 207 |
| 8 | On the four-dimensional effective action of strongly coupled heterotic string theory. <i>Nuclear Physics B</i> , 1998, 532, 43-82. | 0.9 | 189 |
| 9 | A heterotic standard model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2005, 618, 252-258. | 1.5 | 189 |
| 10 | The exact MSSM spectrum from string theory. <i>Journal of High Energy Physics</i> , 2006, 2006, 043-043. | 1.6 | 175 |
| 11 | Cosmological solutions of Hořava-Witten theory. <i>Physical Review D</i> , 1999, 60, . | 1.6 | 172 |
| 12 | Non-Gaussianities in New Ekpyrotic Cosmology. <i>Physical Review Letters</i> , 2008, 100, 171302. | 2.9 | 130 |
| 13 | Cosmological super-bounce. <i>Physical Review D</i> , 2014, 90, . | 1.6 | 112 |
| 14 | A Standard Model from the $E_8\tilde{\times}E_8$ heterotic superstring. <i>Journal of High Energy Physics</i> , 2005, 2005, 039-039. | 1.6 | 105 |
| 15 | Nonstandard embedding and five-branes in heterotic M theory. <i>Physical Review D</i> , 1999, 59, . | 1.6 | 104 |
| 16 | Supersymmetry and inflation: A new approach. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1983, 133, 161-168. | 1.5 | 95 |
| 17 | Gaugino condensation in M theory on S^1/Z_2 . <i>Physical Review D</i> , 1998, 57, 7529-7538. | 1.6 | 94 |
| 18 | Cosmological perturbations through a non-singular ghost-condensate/Galileon bounce. <i>Journal of Cosmology and Astroparticle Physics</i> , 2014, 2014, 007-007. | 1.9 | 90 |

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|----|---|-----|-----------|
| 19 | The Particle Spectrum of Heterotic Compactifications. Journal of High Energy Physics, 2004, 2004, 054-054. | 1.6 | 88 |
| 20 | Holomorphic vector bundles and non-perturbative vacua in M-theory. Journal of High Energy Physics, 1999, 1999, 034-034. | 1.6 | 87 |
| 21 | Standard models from heterotic M-theory. Advances in Theoretical and Mathematical Physics, 2001, 5, 93-137. | 0.4 | 85 |
| 22 | Small instanton transitions in heterotic M-theory. Journal of High Energy Physics, 2000, 2000, 045-045. | 1.6 | 79 |
| 23 | Standard-model bundles. Advances in Theoretical and Mathematical Physics, 2001, 5, 563-615. | 0.4 | 78 |
| 24 | Vector Bundle Moduli Superpotentials in Heterotic Superstrings and M-Theory. Journal of High Energy Physics, 2002, 2002, 066-066. | 1.6 | 74 |
| 25 | Superpotentials for vector bundle moduli. Nuclear Physics B, 2003, 653, 400-420. | 0.9 | 71 |
| 26 | On the initial conditions in new ekpyrotic cosmology. Journal of High Energy Physics, 2007, 2007, 076-076. | 1.6 | 69 |
| 27 | Five-branes and supersymmetry breaking in M-Theory. Journal of High Energy Physics, 1999, 1999, 009-009. | 1.6 | 68 |
| 28 | Vacuum stability in heterotic M theory. Physical Review D, 2004, 69, . | 1.6 | 68 |
| 29 | Standard-model bundles on non-simply connected Calabi-Yau threefolds. Journal of High Energy Physics, 2001, 2001, 053-053. | 1.6 | 67 |
| 30 | Non-perturbative vacua and particle physics in M-theory. Journal of High Energy Physics, 1999, 1999, 018-018. | 1.6 | 66 |
| 31 | The spectra of heterotic standard model vacua. Journal of High Energy Physics, 2005, 2005, 070-070. | 1.6 | 66 |
| 32 | Stability walls in heterotic theories. Journal of High Energy Physics, 2009, 2009, 026-026. | 1.6 | 65 |
| 33 | Nonperturbative superpotentials from membrane instantons in heterotic M-theory. Nuclear Physics B, 2001, 614, 117-170. | 0.9 | 64 |
| 34 | Supersymmetric Galileons. Physical Review D, 2011, 84, . | 1.6 | 63 |
| 35 | Stabilizing the complex structure in heterotic Calabi-Yau vacua. Journal of High Energy Physics, 2011, 2011, 1. | 1.6 | 63 |
| 36 | Nonsingular bouncing cosmology: Consistency of the effective description. Physical Review D, 2016, 93, . | 1.6 | 59 |

| # | ARTICLE | IF | CITATIONS |
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| 37 | Spectral involutions on rational elliptic surfaces. <i>Advances in Theoretical and Mathematical Physics</i> , 2001, 5, 499-561. | 0.4 | 57 |
| 38 | Vector bundle extensions, sheaf cohomology, and the heterotic standard model. <i>Advances in Theoretical and Mathematical Physics</i> , 2006, 10, 525-589. | 0.4 | 57 |
| 39 | Vector Bundle Moduli and Small Instanton Transitions. <i>Journal of High Energy Physics</i> , 2002, 2002, 054-054. | 1.6 | 56 |
| 40 | Elliptic Calabi-Yau Threefolds with Z_3 -Wilson Lines. <i>Journal of High Energy Physics</i> , 2004, 2004, 062-062. | 1.6 | 56 |
| 41 | The world sheet supergravity of the heterotic string. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1986, 171, 177-181. | 1.5 | 55 |
| 42 | The ten-dimensional effective action of strongly coupled heterotic string theory. <i>Nuclear Physics B</i> , 1999, 540, 230-246. | 0.9 | 54 |
| 43 | The Atiyah class and complex structure stabilization in heterotic Calabi-Yau compactifications. <i>Journal of High Energy Physics</i> , 2011, 2011, 1. | 1.6 | 54 |
| 44 | Splitting the superstring vacuum degeneracy. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1986, 174, 63-68. | 1.5 | 51 |
| 45 | Moduli spaces of fivebranes on elliptic Calabi-Yau threefolds. <i>Journal of High Energy Physics</i> , 1999, 1999, 030-030. | 1.6 | 51 |
| 46 | Visible branes with negative tension in heterotic M-theory. <i>Journal of High Energy Physics</i> , 2001, 2001, 041-041. | 1.6 | 51 |
| 47 | Supersymmetric $P(X, \mathbb{R})$ TQFTs | 1.6 | 51 |
| 48 | The edge of supersymmetry: Stability walls in heterotic theory. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2009, 677, 190-194. | 1.5 | 47 |
| 49 | Moduli dependent spectra of heterotic compactifications. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2004, 598, 279-284. | 1.5 | 46 |
| 50 | Calabi-Yau metrics for quotients and complete intersections. <i>Journal of High Energy Physics</i> , 2008, 2008, 080-080. | 1.6 | 46 |
| 51 | Eigenvalues and eigenfunctions of the scalar Laplace operator on Calabi-Yau manifolds. <i>Journal of High Energy Physics</i> , 2008, 2008, 120-120. | 1.6 | 45 |
| 52 | Yukawa couplings in heterotic standard models. <i>Journal of High Energy Physics</i> , 2006, 2006, 019-019. | 1.6 | 42 |
| 53 | Higher-derivative chiral superfield actions coupled to $N=1$ supergravity. <i>Physical Review D</i> , 2012, 86, . | 1.6 | 42 |
| 54 | Sigma-model duality and duality transformations in string theory. <i>Physical Review D</i> , 1989, 40, 1146-1149. | 1.6 | 37 |

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|----|---|-----|-----------|
| 55 | Five-brane superpotentials in heterotic M-theory. Nuclear Physics B, 2002, 626, 113-164. | 0.9 | 36 |
| 56 | The $B-L$ /electroweak hierarchy in heterotic string and M-theory. Journal of High Energy Physics, 2009, 2009, 011-011. | 1.6 | 36 |
| 57 | THE MASS SPECTRA, HIERARCHY AND COSMOLOGY OF B-L MSSM HETEROTIC COMPACTIFICATIONS. International Journal of Modern Physics A, 2011, 26, 1569-1627. | 0.5 | 36 |
| 58 | Heterotic M-theory cosmology in four and five dimensions. Physical Review D, 2000, 63, . | 1.6 | 35 |
| 59 | Yukawa textures from heterotic stability walls. Journal of High Energy Physics, 2010, 2010, 1. | 1.6 | 35 |
| 60 | Torus-Fibered Calabi-Yau threefolds with non-trivial fundamental group. Journal of High Energy Physics, 2003, 2003, 040-040. | 1.6 | 33 |
| 61 | Machine Learning Calabi-Yau Metrics. Fortschritte Der Physik, 2020, 68, 2000068. | 1.5 | 33 |
| 62 | Stabilizing moduli with a positive cosmological constant in heterotic M-theory. Journal of High Energy Physics, 2006, 2006, 035-035. | 1.6 | 31 |
| 63 | THE $B-L$ /ELECTROWEAK HIERARCHY IN SMOOTH HETEROTIC COMPACTIFICATIONS. International Journal of Modern Physics A, 2010, 25, 2631-2677. | 0.5 | 31 |
| 64 | Stabilizing all geometric moduli in heterotic Calabi-Yau vacua. Physical Review D, 2011, 83, . | 1.6 | 31 |
| 65 | Worldsheet instantons, torsion curves and non-perturbative superpotentials. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 649, 334-341. | 1.5 | 30 |
| 66 | Stabilizing dilaton and moduli vacua in string and M-theory cosmology. Nuclear Physics B, 1998, 509, 169-193. | 0.9 | 29 |
| 67 | Worldsheet instantons and torsion curves. Part A: direct computation. Journal of High Energy Physics, 2007, 2007, 022-022. | 1.6 | 28 |
| 68 | Ghost condensate in $N=1$ supergravity. Physical Review D, 2013, 87, . | 1.6 | 28 |
| 69 | Spontaneous R-parity breaking, stop LSP decays and the neutrino mass hierarchy. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 732, 325-329. | 1.5 | 28 |
| 70 | Stability of the minimal heterotic standard model bundle. Journal of High Energy Physics, 2006, 2006, 032-032. | 1.6 | 26 |
| 71 | Worldsheet instantons and torsion curves. Part B: mirror symmetry. Journal of High Energy Physics, 2007, 2007, 023-023. | 1.6 | 26 |
| 72 | Numerical Hermitian Yang-Mills connections and vector bundle stability in heterotic theories. Journal of High Energy Physics, 2010, 2010, 1. | 1.6 | 26 |

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| 73 | The worldvolume action of kink solitons in AdS spacetime. Journal of High Energy Physics, 2012, 2012, 1. | 1.6 | 26 |
| 74 | Vacuum varieties, holomorphic bundles and complex structure stabilization in heterotic theories. Journal of High Energy Physics, 2013, 2013, 1. | 1.6 | 26 |
| 75 | Superstrings and the auxiliary field structure of supergravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 205, 455-458. | 1.5 | 24 |
| 76 | Heterotic standard model moduli. Journal of High Energy Physics, 2006, 2006, 025-025. | 1.6 | 21 |
| 77 | Wilson lines and a canonical basis of SU(4) heterotic standard models. Journal of High Energy Physics, 2012, 2012, 1. | 1.6 | 19 |
| 78 | Moduli dependent $\hat{1}/4$ -terms in a heterotic Standard Model. Journal of High Energy Physics, 2006, 2006, 006-006. | 1.6 | 18 |
| 79 | A statistical analysis of the minimal SUSY $\hat{B}\hat{L}$ theory. Modern Physics Letters A, 2015, 30, 1550085. | 0.5 | 17 |
| 80 | Perturbative reheating in Sneutrino-Higgs cosmology. Journal of High Energy Physics, 2018, 2018, 1. | 1.6 | 17 |
| 81 | LSP squark decays at the LHC and the neutrino mass hierarchy. Physical Review D, 2014, 90, . | 1.6 | 16 |
| 82 | The minimal SUSY $\hat{B}\hat{L}$ model: from the unification scale to the LHC. Journal of High Energy Physics, 2015, 2015, 1. | 1.6 | 16 |
| 83 | Numerical Hermitian Yang-Mills connections and Kähler cone substructure. Journal of High Energy Physics, 2012, 2012, 1. | 1.6 | 15 |
| 84 | Supersymmetric hidden sectors for heterotic standard models. Journal of High Energy Physics, 2013, 2013, 1. | 1.6 | 13 |
| 85 | Non-perturbative vacua in heterotic M-theory. Classical and Quantum Gravity, 2000, 17, 1049-1056. | 1.5 | 12 |
| 86 | Instanton moduli in string theory. Journal of High Energy Physics, 2005, 2005, 008-008. | 1.6 | 12 |
| 87 | Computational Algebraic Geometry in String and Gauge Theory. Advances in High Energy Physics, 2012, 2012, 1-4. | 0.5 | 12 |
| 88 | Supersymmetric Sneutrino-Higgs inflation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 762, 441-446. | 1.5 | 12 |
| 89 | The minimal SUSY $\hat{B}\hat{L}$ model: simultaneous Wilson lines and string thresholds. Journal of High Energy Physics, 2016, 2016, 1. | 1.6 | 11 |
| 90 | Heterotic M-Theory Vacua with Five-Branes. Fortschritte Der Physik, 2000, 48, 167-170. | 1.5 | 10 |

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|-----|--|-----|-----------|
| 91 | DBI inflation in $N=1$ supergravity. <i>Physical Review D</i> , 2012, 86, . | 1.6 | 10 |
| 92 | Heterotic instanton superpotentials from complete intersection Calabi-Yau manifolds. <i>Journal of High Energy Physics</i> , 2017, 2017, 1. | 1.6 | 10 |
| 93 | Non-vanishing superpotentials in heterotic string theory and discrete torsion. <i>Journal of High Energy Physics</i> , 2017, 2017, 1. | 1.6 | 10 |
| 94 | R-parity violating decays of Wino chargino and wino neutralino LSPs and NLSPs at the LHC. <i>Journal of High Energy Physics</i> , 2019, 2019, 1. | 1.6 | 10 |
| 95 | An M-Theory Perspective on Heterotic K3 Orbifold Compactifications. <i>International Journal of Modern Physics A</i> , 2003, 18, 3273-3314. | 0.5 | 9 |
| 96 | Heterotic kink solitons and their worldvolume action. <i>Journal of High Energy Physics</i> , 2012, 2012, 1. | 1.6 | 9 |
| 97 | Supersymmetric cubic Galileons have ghosts. <i>Physical Review D</i> , 2013, 88, . | 1.6 | 9 |
| 98 | The R-parity violating decays of charginos and neutralinos in the B-L MSSM. <i>Journal of High Energy Physics</i> , 2019, 2019, 1. | 1.6 | 9 |
| 99 | Flux, gaugino condensation, and antibranes in heterotic M theory. <i>Physical Review D</i> , 2007, 76, . | 1.6 | 7 |
| 100 | Perturbative anti-brane potentials in heterotic M theory. <i>Physical Review D</i> , 2007, 76, . | 1.6 | 7 |
| 101 | Vacuum Constraints for Realistic Strongly Coupled Heterotic M-Theories. <i>Symmetry</i> , 2018, 10, 723. | 1.1 | 7 |
| 102 | Instantons and Hilbert functions. <i>Physical Review D</i> , 2020, 102, . | 1.6 | 7 |
| 103 | Heterotic instantons for monad and extension bundles. <i>Journal of High Energy Physics</i> , 2020, 2020, 1. | 1.6 | 7 |
| 104 | Vector Bundle Moduli. <i>Russian Physics Journal</i> , 2002, 45, 662-669. | 0.2 | 6 |
| 105 | Two Higgs pair heterotic vacua and flavor-changing neutral currents. <i>Journal of High Energy Physics</i> , 2008, 2008, 046-046. | 1.6 | 6 |
| 106 | B-L cosmic strings in heterotic standard models. <i>Journal of High Energy Physics</i> , 2010, 2010, 1. | 1.6 | 6 |
| 107 | Non-vanishing heterotic superpotentials on elliptic fibrations. <i>Journal of High Energy Physics</i> , 2018, 2018, 1. | 1.6 | 6 |
| 108 | R-parity violating decays of Bino neutralino LSPs at the LHC. <i>Journal of High Energy Physics</i> , 2019, 2019, 1. | 1.6 | 6 |

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| 109 | Line Bundle Hidden Sectors for Strongly Coupled Heterotic Standard Models. Fortschritte Der Physik, 2021, 69, 2100052. | 1.5 | 4 |
| 110 | Machine learning line bundle connections. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2022, 827, 136972. | 1.5 | 4 |
| 111 | Calabi-Yau metrics, energy functionals and machine learning. , 2023, 01, 49-61. | | 4 |
| 112 | Twisted Sectors and Chern-Simons Terms in M-Theory Orbifolds. International Journal of Modern Physics A, 2003, 18, 2995-3013. | 0.5 | 3 |
| 113 | A Heterotic Standard Model. AIP Conference Proceedings, 2005, , . | 0.3 | 3 |
| 114 | Explicit soft supersymmetry breaking in the heterotic M-theory B $\hat{=}$ L MSSM. Journal of High Energy Physics, 2021, 2021, 1. | 1.6 | 3 |
| 115 | Scalars with Higher Derivatives in Supergravity and Cosmology. Springer Proceedings in Physics, 2014, , 115-143. | 0.1 | 3 |
| 116 | VORTICES AND MONOPOLES ON A SPHERE. Modern Physics Letters A, 1990, 05, 2351-2359. | 0.5 | 2 |
| 117 | The Universe as a Three-Brane. Fortschritte Der Physik, 2000, 48, 183-190. | 1.5 | 2 |
| 118 | SYMMETRIC VACUA IN HETEROTIC M THEORY. International Journal of Modern Physics A, 2000, 15, 5161-5182. | 0.5 | 2 |
| 119 | Supergravitational conformal Galileons. Journal of High Energy Physics, 2017, 2017, 1. | 1.6 | 2 |
| 120 | N =1 supergravitational heterotic galileons. Journal of High Energy Physics, 2017, 2017, 1. | 1.6 | 2 |
| 121 | A GEOMETRIC INTERPRETATION FOR THE TORSION CONSTRAINTS OF (2,0) HETEROTIC WORLDSHEET SUPERGRAVITY. Modern Physics Letters A, 1991, 06, 3341-3347. | 0.5 | 1 |
| 122 | ANTISYMMETRIC TENSOR FIELD COUPLED TO CHIRAL MATTER AND DYNAMICAL SYMMETRY BREAKING. Modern Physics Letters A, 1992, 07, 571-582. | 0.5 | 1 |
| 123 | Nonperturbative Effects in 2D String Theory or, Beyond the Liouville Wall. International Journal of Modern Physics A, 1997, 12, 3477-3515. | 0.5 | 1 |
| 124 | The dynamics of small instanton phase transitions. Journal of High Energy Physics, 2005, 2005, 023-023. | 1.6 | 1 |
| 125 | LECTURES ON HETEROTIC M-THEORY. , 2004, , . | | 1 |
| 126 | Hidden Sectors from Multiple Line Bundles for the B $\hat{=}$ L MSSM. Fortschritte Der Physik, 2022, 70, . | 1.5 | 1 |

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| 127 | Supersymmetry, supergravity, and particle physics. AIP Conference Proceedings, 1986, , . | 0.3 | 0 |
| 128 | Non-perturbative interactions in string theory. AIP Conference Proceedings, 1992, , . | 0.3 | 0 |
| 129 | BIG CRUNCH/BIG BANG STRING COSMOLOGIES. , 2005, , . | | 0 |