



## Renata Kallosh

Stanford W. Ascherman, MD Professor and Professor, by courtesy, of Mathematics  
Physics

 Curriculum Vitae available Online

### CONTACT INFORMATION

#### • Administrative Contact

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### Bio

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#### BIO

What is the mathematical structure of supergravity/string theory and its relation to cosmology?

Professor Kallosh works on the general structure of supergravity and string theory and their applications to cosmology. Her main interests are related to the models early universe inflation and dark energy in string theory. She develops string theory models explaining the origin of the universe and its current acceleration. With her collaborators, she has recently constructed de Sitter supergravity, which is most suitable for studies of inflation and dark energy and spontaneously broken supersymmetry.

She is analyzing possible consequences of the expected new data from the Large Hadron Collider (LHC) and the results of current and future cosmological observations, including Planck satellite CMB data. These results may affect the relationship between superstring theory and supergravity, and the real world. Professor Kallosh works, in particular, on future tests of string theory by CMB data and effective supergravity models with flexible amplitude of gravitational waves produced during inflation.

#### ACADEMIC APPOINTMENTS

- Professor, Physics
- Professor (By courtesy), Mathematics

#### ADMINISTRATIVE APPOINTMENTS

- Professor of Physics, Stanford University, (1990- present)
- Junior Research Fellow, Lebedev Physical Institute, (1968-1981)
- Professor, Lebedev Physical Institute, (1981-1989)
- Coxeter Lecturer, Fields Mathematical Institute in Toronto, (2005-2005)
- Visiting Professorship, Kyoto Institute of Theoretical Physics, (2008-2008)

#### HONORS AND AWARDS

- Research Award, Humboldt International, Germany (2005 - 2008)

- Lise Meitner Prize, Gothenburg University and Chalmers (2009)
- Doctorate Honoris Causa, University of Groningen (2013)
- Elected a Member of American Academy of Art & Science, American Academy of Art & Science (2018)
- Lorentz chair 2017, Lorentz center Leiden University (Summer 2017)

## BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- A member of advisory board, Dutch scientific council in theoretical physics (2013 - present)
- A member of advisory board, ICTP Trieste (2012 - present)
- Scientific Associate, CERN (1989 - 1990)

## PROFESSIONAL EDUCATION

- Ph.D., Lebedev Physical Institute , Physics (1968)
- B.S., Moscow State University , Physics (1966)

## LINKS

- Publications on arXiv: [http://inspirehep.net/search?ln=en&p=a+kallosh&of=hb&action\\_search=Search&sf=earliestdate&so=d](http://inspirehep.net/search?ln=en&p=a+kallosh&of=hb&action_search=Search&sf=earliestdate&so=d)

## Teaching

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### COURSES

#### 2021-22

- Intermediate Electricity and Magnetism II: PHYSICS 121 (Spr)
- Quantum Field Theory I: PHYSICS 330 (Aut)

#### 2020-21

- Intermediate Electricity and Magnetism II: PHYSICS 121 (Spr)
- Mathematical Methods for Physics: PHYSICS 112 (Win)

#### 2018-19

- Classical Electrodynamics: PHYSICS 220 (Spr)
- Frontiers in Theoretical Physics and Cosmology: PHYSICS 18N (Win)

### STANFORD ADVISEES

#### Doctoral Dissertation Reader (AC)

Evan Austen Coleman Coleman

#### Doctoral (Program)

James Black

## Publications

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### PUBLICATIONS

- **Polynomial alpha-attractors** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2022
- **BICEP/Keck and cosmological attractors** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.

2021

- **Quantization of gravity in spherical harmonic basis** *PHYSICAL REVIEW D*  
Kallosh, R.  
2021; 104 (8)
- **Quantization of gravity in the black hole background** *PHYSICAL REVIEW D*  
Kallosh, R., Rahman, A. A.  
2021; 104 (8)
- **IIB String Theory and Sequestered Inflation** *FORTSCHRITTE DER PHYSIK-PROGRESS OF PHYSICS*  
Kallosh, R., Linde, A., Wrase, T., Yamada, Y.  
2021
- **Sequestered Inflation** *FORTSCHRITTE DER PHYSIK-PROGRESS OF PHYSICS*  
Kallosh, R., Linde, A., Wrase, T., Yamada, Y.  
2021
- **M-theory, black holes and cosmology** *PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*  
Kallosh, R.  
2021; 477 (2245)
- **M-theory cosmology, octonions, error correcting codes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Gunaydin, M., Kallosh, R., Linde, A., Yamada, Y.  
2021
- **M-theory, black holes and cosmology.** *Proceedings. Mathematical, physical, and engineering sciences*  
Kallosh, R.  
2021; 477 (2245): 20200786
- **de Sitter minima from M-theory and string theory** *PHYSICAL REVIEW D*  
Cribiori, N., Kallosh, R., Linde, A., Roupec, C.  
2020; 101 (4)
- **Mass production of type IIA dS vacua** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A.  
2020
- **Uplifting anti-D6-brane** *JOURNAL OF HIGH ENERGY PHYSICS*  
Cribiori, N., Kallosh, R., Roupec, C., Wrase, T.  
2019
- **CMB targets after the latest Planck data release** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A.  
2019; 100 (12)
- **B-mode targets** *PHYSICS LETTERS B*  
Kallosh, R., Linde, A.  
2019; 798
- **Supersymmetry constraints on U-duality invariant deformations of  $N \geq 5$  supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Gunaydin, M., Kallosh, R.  
2019
- **On hilltop and brane inflation after Planck** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2019
- **The action with manifest E7 type symmetry** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R.

2019

- **Simple inflaton-less -attractors** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Yamada, Y.  
2019
- **dS vacua and the swampland** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., McDonough, E., Scalisi, M.  
2019
- **Gaugino condensation and geometry of the perfect square** *PHYSICAL REVIEW D*  
Kallosh, R.  
2019; 99 (6)
- **4D models of de Sitter uplift** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A., McDonough, E., Scalisi, M.  
2019; 99 (4)
- **Planck 2018 and brane inflation revisited** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., Yamada, Y.  
2019
- **dS Supergravity from 10d** *FORTSCHRITTE DER PHYSIK-PROGRESS OF PHYSICS*  
Kallosh, R., Wrase, T.  
2019; 67 (1-2)
- **The Landscape, the Swampland and the Era of Precision Cosmology** *FORTSCHRITTE DER PHYSIK-PROGRESS OF PHYSICS*  
Akrami, Y., Kallosh, R., Linde, A., Vardanyan, V.  
2019; 67 (1-2)
- **de Sitter Vacua with a Nilpotent Superfield** *FORTSCHRITTE DER PHYSIK-PROGRESS OF PHYSICS*  
Kallosh, R., Linde, A., McDonough, E., Scalisi, M.  
2019; 67 (1-2)
- **From the Sky to the Fundamental Physics** *FOUNDATIONS OF PHYSICS*  
Kallosh, R.  
2018; 48 (10): 1279–90
- **Dark energy, alpha-attractors, and large-scale structure surveys** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Akrami, Y., Kallosh, R., Linde, A., Vardanyan, V.  
2018
- **Universality of multi-field alpha-attractors** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Achucarro, A., Kallosh, R., Linde, A., Wang, D., Welling, Y.  
2018
- **Fibre inflation and alpha-attractors** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., Roest, D., Westphal, A., Yamada, Y.  
2018
- **Absence of U(1) anomalous superamplitudes in  $\mathcal{N} \geq 5$  supergravities** *JOURNAL OF HIGH ENERGY PHYSICS*  
Freedman, D. Z., Kallosh, R., Murli, D., Van Proeyen, A., Yamada, Y.  
2017
- **Origin of soft limits from nonlinear supersymmetry in Volkov-Akulov theory** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Karlsson, A., Murli, D.  
2017
- **yNonlinear (super)symmetries and amplitudes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R.

2017

- **Cancellation of conformal and chiral anomalies in  $N \geq 5$  supergravities** *PHYSICAL REVIEW D*  
Kallosh, R.  
2017; 95 (4)
- **Seven-disk manifold, alpha-attractors, and B modes** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R.  
2016; 94 (12)
- **Cosmological attractors and asymptotic freedom of the inflaton field** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2016
- **Orthogonal nilpotent superfields from linear models** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Karlsson, A., Mosk, B., Murli, D.  
2016
- **MATTER-COUPLED DE SITTER SUPERGRAVITY** *THEORETICAL AND MATHEMATICAL PHYSICS*  
Kallosh, R. E.  
2016; 187 (2): 695-705
- **Linear versus non-linear supersymmetry, in general** *JOURNAL OF HIGH ENERGY PHYSICS*  
Ferrara, S., Kallosh, R., Van Proeyen, A., Wrase, T.  
2016
- **Coupling the inflationary sector to matter** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., Wrase, T.  
2016
- **Minimal supergravity inflation** *PHYSICAL REVIEW D*  
Carrasco, J. J., Kallosh, R., Linde, A.  
2016; 93 (6)
- **Cosmology with orthogonal nilpotent superfields** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R., Thaler, J.  
2016; 93 (4)
- **From linear to nonlinear supersymmetry via functional integration** *PHYSICAL REVIEW D*  
Kallosh, R., Karlsson, A., Murli, D.  
2016; 93 (2)
- **Escher in the Sky** *COMPTES RENDUS PHYSIQUE*  
Kallosh, R., Linde, A.  
2015; 16 (10): 914-927
- **de Sitter supergravity model building** *PHYSICAL REVIEW D*  
Kallosh, R., Wrase, T.  
2015; 92 (10)
- **Pure de Sitter supergravity** *PHYSICAL REVIEW D*  
Bergshoeff, E. A., Freedman, D. Z., Kallosh, R., Van Proeyen, A.  
2015; 92 (8)
- **alpha-attractors: Planck, LHC and dark energy** *JOURNAL OF HIGH ENERGY PHYSICS*  
Carrasco, J. J., Kallosh, R., Linde, A.  
2015
- **Cosmological attractors and initial conditions for inflation** *PHYSICAL REVIEW D*  
Carrasco, J. J., Kallosh, R., Linde, A.

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2015; 92 (6)

- **Hyperbolic geometry of cosmological attractors** *PHYSICAL REVIEW D*  
Carrasco, J. J., Kallosh, R., Linde, A., Roest, D.  
2015; 92 (4)
- **(D3)over-bar and dS** *JOURNAL OF HIGH ENERGY PHYSICS*  
Bergshoeff, E. A., Dasgupta, K., Kallosh, R., Van Proeyen, A., Wrase, T.  
2015
- **Planck, LHC, and alpha-attractors** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A.  
2015; 91 (8)
- **Unity of Cosmological Inflation Attractors** *PHYSICAL REVIEW LETTERS*  
Galante, M., Kallosh, R., Linde, A., Roest, D.  
2015; 114 (14)
- **Inflation, de Sitter landscape and super-Higgs effect** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., Scalisi, M.  
2015
- **Inflation and uplifting with nilpotent superfields** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2015
- **Emergence of spontaneously broken supersymmetry on an anti-D3-brane in KKLT dS vacua** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Wrase, T.  
2014
- **Cosmology with nilpotent superfields** *JOURNAL OF HIGH ENERGY PHYSICS*  
Ferrara, S., Kallosh, R., Linde, A.  
2014
- **Analytic classes of metastable de Sitter vacua** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., Vercnocke, B., Wrase, T.  
2014
- **The double attractor behavior of induced inflation** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., Roest, D.  
2014
- **Natural inflation in supergravity and beyond** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A., Vercnocke, B.  
2014; 90 (4)
- **Large field inflation and double alpha-attractors** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., Roest, D.  
2014
- **Chaotic inflation in supergravity after Planck and BICEP2** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A., Westphal, A.  
2014; 90 (2)
- **Is imaginary Starobinsky model real?** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A., Vercnocke, B., Chemissany, W.  
2014
- **Cosmological attractor models and higher curvature supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Cecotti, S., Kallosh, R.

2014

- **More on universal superconformal attractors** *PHYSICAL REVIEW D*  
Kallosh, R.  
2014; 89 (8)
- **Journeys through antigravity?** *JOURNAL OF HIGH ENERGY PHYSICS*  
Carrasco, J. J., Chemissany, W., Kallosh, R.  
2014
- **Universal Attractor for Inflation at Strong Coupling** *PHYSICAL REVIEW LETTERS*  
Kallosh, R., Linde, A., Roest, D.  
2014; 112 (1)
- **Hidden superconformal symmetry of the cosmological evolution** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2014
- **Multi-field conformal cosmological attractors** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2013
- **On the supersymmetric completion of R+R-2 gravity and cosmology** *JOURNAL OF HIGH ENERGY PHYSICS*  
Ferrara, S., Kallosh, R., Van Proeyen, A.  
2013
- **High order corrections in minimal supergravity models of inflation** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Ferrara, S., Kallosh, R., Linde, A., Porrati, M.  
2013
- **Minimal supergravity models of inflation** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R., Linde, A., Porrati, M.  
2013; 88 (8)
- **Non-minimal Inflationary Attractors** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2013
- **Dirac-Born-Infeld-Volkov-Akulov and deformation of supersymmetry** *JOURNAL OF HIGH ENERGY PHYSICS*  
Bergshoeff, E., Coomans, F., Kallosh, R., Shahbazi, C. S., Van Proeyen, A.  
2013
- **Universality class in conformal inflation** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2013
- **On the U(1) duality anomaly and the S-matrix of N=4 supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Carrasco, J. J., Kallosh, R., Roiban, R., Tseytlin, A. A.  
2013
- **Superconformal generalization of the chaotic inflation model  $\lambda/4 \phi^4 - \xi/2 \phi^2$  R-2** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2013
- **Superconformal generalizations of the Starobinsky model** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2013
- **Conjecture on hidden superconformal symmetry of N=4 supergravity** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R., Van Proeyen, A.

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2013; 87 (2)

- **N=2 supergravity counterterms, off and on shell** *JOURNAL OF HIGH ENERGY PHYSICS*  
Chemissany, W., Ferrara, S., Kallosh, R., Shahbazi, C. S.  
2012
- **New E-7(7) invariants and amplitudes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Ortin, T.  
2012
- **N=2 supersymmetry and U(1)-duality** *PHYSICAL REVIEW D*  
Broedel, J., Carrasco, J. J., Ferrara, S., Kallosh, R., Roiban, R.  
2012; 85 (12)
- **Degeneration of groups of type E-7 and minimal coupling in supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Ferrara, S., Kallosh, R., Marrani, A.  
2012
- **Absence of 3-loop divergence in N=4 supergravity** *PHYSICAL REVIEW D*  
Kallosh, R.  
2012; 85 (8)
- **E-7(7) symmetry and finiteness of N=8 supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R.  
2012
- **Born-Infeld theory with higher derivatives** *PHYSICAL REVIEW D*  
Chemissany, W., Kallosh, R., Ortin, T.  
2012; 85 (4)
- **Covariant procedures for perturbative nonlinear deformation of duality-invariant theories** *PHYSICAL REVIEW D*  
Carrasco, J. J., Kallosh, R., Roiban, R.  
2012; 85 (2)
- **Creation of matter in the universe and groups of type E7** *JOURNAL OF HIGH ENERGY PHYSICS*  
Ferrara, S., Kallosh, R.  
2011
- **Chaotic inflation and supersymmetry breaking** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A., Olive, K. A., Rube, T.  
2011; 84 (8)
- **Generalized attractor points in gauged supergravity** *PHYSICAL REVIEW D*  
Kachru, S., Kallosh, R., Shmakova, M.  
2011; 84 (4)
- **N=8 counterterms and E-7(7) current conservation** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R.  
2011
- **From lightcone actions to maximally supersymmetric amplitudes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Broedel, J., Kallosh, R.  
2011
- **General inflaton potentials in supergravity** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A., Rube, T.  
2011; 83 (4)
- **Superconformal symmetry, NMSSM, and inflation** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R., Linde, A., Marrani, A., Van Proeyen, A.



2011; 83 (2)

- **New N=4 supersymmetric Yang-Mills path integral** *PHYSICAL REVIEW D*  
Fu, C., Kallosh, R.  
2010; 82 (12)
- **The ultraviolet finiteness N=8 supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R.  
2010
- **New models of chaotic inflation in supergravity** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2010
- **Jordan frame supergravity and inflation in the NMSSM** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R., Linde, A., Marrani, A., Van Proeyen, A.  
2010; 82 (4)
- **Perturbative and non-perturbative N=8 supergravity** *PHYSICS LETTERS B*  
Bianchi, M., Ferrara, S., Kallosh, R.  
2010; 690 (3): 328-331
- **Compactification on negatively curved manifolds** *JOURNAL OF HIGH ENERGY PHYSICS*  
Douglas, M. R., Kallosh, R.  
2010
- **Observations on arithmetic invariants and U-duality orbits in N=8 supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Bianchi, M., Ferrara, S., Kallosh, R.  
2010
- **N=8 supergravity on the light cone** *PHYSICAL REVIEW D*  
Kallosh, R.  
2009; 80 (10)
- **On UV finiteness of the four loop N=8 supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R.  
2009
- **UV properties of N=8 supergravity** *4th EU RTN Workshop on Constituents, Fundamental Forces and Symmetries of the Universe*  
Kallosh, R.  
WILEY-V C H VERLAG GMBH.2009: 385-95
- **N=8 Supergravity 4-point amplitudes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Lee, C. H., Rube, T.  
2009
- **Update of D3/D7-brane inflation on K3 x T-2/Z(2)** *NUCLEAR PHYSICS B*  
Haack, M., Kallosh, R., Krause, A., Linde, A., Luest, D., Zagermann, M.  
2009; 806 (1-2): 103-177
- **The footprint of E-7(7) in amplitudes of N=8 supergravity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Kugo, T.  
2009
- **Explicit action of E-7(7) on N=8 supergravity fields** *NUCLEAR PHYSICS B*  
Kallosh, R., Soroush, M.  
2008; 801 (1-2): 25-44
- **Volume modulus inflation and the gravitino mass problem** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Conlon, J. P., Kallosh, R., Linde, A., Quevedo, F.

2008

- **The new ekpyrotic ghost** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Kang, J. U., Linde, A., Mukhanov, V.  
2008
- **Axion inflation and gravity waves in string theory** *PHYSICAL REVIEW D*  
Kallosh, R., Sivanandam, N., Soroush, M.  
2008; 77 (4)
- **Testing string theory by CMB** *8th Asia-Pacific International Conference on Gravitation and Astrophysics*  
Kallosh, R.  
PROGRESS THEORETICAL PHYSICS PUBLICATION OFFICE.2008: 1–10
- **Issues in type IIA uplifting** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Soroush, M.  
2007
- **Testing string theory with cosmic microwave background** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2007
- **O'KKLT** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A.  
2007
- **Magic supergravities, N=8 and black hole composites** *PHYSICAL REVIEW D*  
Ferrara, S., Gimon, E. G., Kallosh, R.  
2006; 74 (12)
- **Domain walls, near-BPS bubbles, and probabilities in the landscape** *PHYSICAL REVIEW D*  
Ceresole, A., Dall'Agata, G., Giriyavets, A., Kallosh, R., Linde, A.  
2006; 74 (8)
- **Exact attractive non-BPS STU black holes** *PHYSICAL REVIEW D*  
Kallosh, R., Sivanandam, N., Soroush, M.  
2006; 74 (6)
- **Inflating in a better racetrack** *JOURNAL OF HIGH ENERGY PHYSICS*  
Blanco-Pillado, J. J., Burgess, C. P., Cline, J. M., Escoda, C., Gomez-Reino, M., Kallosh, R., Linde, A., Quevedo, F.  
2006
- **N=8 attractors** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R.  
2006; 73 (12)
- **Strings, black holes, and quantum information** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A.  
2006; 73 (10)
- **Supersymmetry and stability of flux vacua** *JOURNAL OF HIGH ENERGY PHYSICS*  
Blanco-Pillado, J. J., Kallosh, R., Linde, A.  
2006
- **The non-BPS black hole attractor equation** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Sivanandam, N., Soroush, M.  
2006
- **Towards string cosmology** *Yukawa International Seminar on Next Chapter in Einsteins Legacy*  
Kallosh, R.

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PROGRESS THEORETICAL PHYSICS PUBLICATION OFFICE.2006: 323–38

- **Features of de Sitter vacua in M-theory** *JOURNAL OF HIGH ENERGY PHYSICS*  
Hsu, J. P., Kallosh, R., Sivanandam, N.  
2006
- **New attractors** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R.  
2005
- **Fixing all moduli for M-theory on K3 x K3** *JOURNAL OF HIGH ENERGY PHYSICS*  
Aspinwall, P. S., Kallosh, R.  
2005
- **An index for the Dirac operator on D3 branes with background fluxes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Bergshoeff, E., Kallosh, R., Kashani-Poor, A. K., Sorokin, D., Tomasiello, A.  
2005
- **String and supergravity motivated cosmology** *RTN Workshop on the Quantum Structure of Space-Time and the Geometric Nature of Fundamental Interactions*  
Kallosh, R.  
WILEY-V C H VERLAG GMBH.2005: 692–719
- **Counting fermionic zero modes on M5 with fluxes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Kashani-Poor, A. K., Tomasiello, A.  
2005
- **Dirac action on M5 and M2 branes with bulk fluxes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Sorokin, D.  
2005
- **De Sitter Vacua and the landscape of string theory** *6th Mexican School on Gravitation and Mathematical Physics*  
Kallosh, R.  
IOP PUBLISHING LTD.2005: 87–110
- **A stringy cloak for a classical singularity** *JOURNAL OF HIGH ENERGY PHYSICS*  
Dabholkar, A., Kallosh, R., Maloney, A.  
2004
- **Landscape, the scale of SUSY breaking, and inflation** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A.  
2004
- **Racetrack inflation** *JOURNAL OF HIGH ENERGY PHYSICS*  
Blanco-Pillado, J. J., Burgess, C. P., Cline, J. M., Escoda, C., Gomez-Reino, M., Kallosh, R., Linde, A. D., Quevedo, F.  
2004
- **D3/D7 brane inflation and semilocal strings** *JOURNAL OF HIGH ENERGY PHYSICS*  
Dasgupta, K., Hsu, J. P., Kallosh, R., Linde, A., Zagermann, M.  
2004
- **Fayet-Iliopoulos terms in supergravity and cosmology** *CLASSICAL AND QUANTUM GRAVITY*  
Binetruy, P., Dvali, G., Kallosh, R., Van Proeyen, A.  
2004; 21 (13): 3137-3169
- **Volume stabilization and the origin of the inflaton shift symmetry in string theory** *JOURNAL OF HIGH ENERGY PHYSICS*  
Hsu, J. P., Kallosh, R.  
2004
- **D-term strings** *JOURNAL OF HIGH ENERGY PHYSICS*  
Dvali, G., Kallosh, R., Van Proeyen, A.

2004

- **On brane inflation with volume stabilization** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Hsu, J. P., Kallosh, R., Prokushkin, S.  
2003
- **P-term, D-term and F-term inflation** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2003
- **De sitter string vacua from supersymmetric D-terms** *JOURNAL OF HIGH ENERGY PHYSICS*  
Burgess, C. P., Kallosh, R., Quevedo, F.  
2003
- **Observational bounds on cosmic doomsday** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Kratochvil, J., Linde, A., Linder, E. V., Shmakova, M.  
2003
- **Towards inflation in string theory** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kachru, S., Kallosh, R., Linde, A., Maldacena, J., McAllister, L., Trivedi, S. P.  
2003
- **de Sitter vacua in string theory** *PHYSICAL REVIEW D*  
Kachru, S., Kallosh, R., Linde, A., Trivedi, S. P.  
2003; 68 (4)
- **M/string theory, S-branes and the accelerating universe** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Gutperle, M., Kallosh, R., Linde, A.  
2003
- **Dark energy and the fate of the Universe** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*  
Kallosh, R., Linde, A.  
2003
- **M theory, cosmological constant, and anthropic principle** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A.  
2003; 67 (2)
- **Supergravity, dark energy, and the fate of the universe** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A., Prokushkin, S., Shmakova, M.  
2002; 66 (12)
- **D3-D7 inflationary model and M theory** *PHYSICAL REVIEW D*  
Dasgupta, K., Herdeiro, C., Hirano, S., Kallosh, R.  
2002; 65 (12)
- **Gauged supergravities, de Sitter space, and cosmology** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A., Prokushkin, S., Shmakova, M.  
2002; 65 (10)
- **Pyrotechnic universe** *PHYSICAL REVIEW D*  
Kallosh, R., Kofman, L., Linde, A.  
2001; 64 (12)
- **BPS branes in cosmology** *PHYSICAL REVIEW D*  
Kallosh, R., Kofman, L., Linde, A., Tseytlin, A.  
2001; 64 (12)
- **String theory and hybrid inflation/acceleration** *JOURNAL OF HIGH ENERGY PHYSICS*  
Herdeiro, C., Hirano, S., Kallosh, R.

2001

- **Hypermultiplets, domain walls, and supersymmetric attractors** *PHYSICAL REVIEW D*  
Ceresole, A., Dall'Agata, G., Kallosh, R., Van Proeyen, A.  
2001; 64 (10)
- **New formulations of D=10 supersymmetry and D8-O8 domain walls** *CLASSICAL AND QUANTUM GRAVITY*  
Bergshoeff, E., Kallosh, R., Ortin, T., Roest, D., Van Proeyen, A.  
2001; 18 (17): 3359-3382
- **Democratic formulation of D=10 supersymmetry** *THEORETICAL AND MATHEMATICAL PHYSICS*  
Kallosh, R.  
2001; 128 (3): 1193-1206
- **Supersymmetry and the brane-world** *2nd Gursev Memorial Conference*  
Kallosh, R.  
IOP PUBLISHING LTD.2001: 3223-31
- **Excision of singularities by stringy domain walls** *JOURNAL OF MATHEMATICAL PHYSICS*  
Kallosh, R., Mohaupt, T., Shmakova, M.  
2001; 42 (7): 3071-3081
- **Domain walls with strings attached** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Prokushkin, S., Shmakova, M.  
2001
- **Supersymmetry in singular spaces and domain walls** *International Superstrings Conference (STRINGS 2000)*  
Kallosh, R.  
WORLD SCIENTIFIC PUBL CO PTE LTD.2001: 683-92
- **Supersymmetry of RS bulk and brane** *FORTSCHRITTE DER PHYSIK-PROGRESS OF PHYSICS*  
Bergshoeff, E., Kallosh, R., Van Proeyen, A.  
2001; 49 (4-6): 625-632
- **Brane world sum rules** *JOURNAL OF HIGH ENERGY PHYSICS*  
Gibbons, G., Kallosh, R., Linde, A.  
2001
- **Superconformal symmetry, supergravity and cosmology** *CLASSICAL AND QUANTUM GRAVITY*  
Kallosh, R., Kofman, L., Linde, A., Van Proeyen, A.  
2000; 17 (20): 4269-4337
- **Supersymmetry in singular spaces** *JOURNAL OF HIGH ENERGY PHYSICS*  
Bergshoeff, E., Kallosh, R., Van Proeyen, A.  
2000
- **Gravitino production after inflation** *PHYSICAL REVIEW D*  
Kallosh, R., Kofman, L., Linde, A., Van Proeyen, A.  
2000; 61 (10)
- **Gravitino production and super-Higgs effect in cosmology** *Les Houches Session LXXI on Primordial Universe*  
Kallosh, R.  
SPRINGER-VERLAG BERLIN.2000: 423-437
- **Superstring action on AdS space** *32nd International Symposium Ahrenshoop on the Theory of Elementary Particles*  
Kallosh, R.  
WILEY-V C H VERLAG GMBH.2000: 133-38
- **Symmetries of the boundary of AdS(5)xS(5) and harmonic superspace** *JOURNAL OF HIGH ENERGY PHYSICS*  
Claus, P., Kallosh, R., Rahmfeld, J.

1999

- **Supersymmetric multiple basin attractors** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Linde, A., Shmakova, M.  
1999
- **BRST quantization of a particle in AdS(5)** *PHYSICS LETTERS B*  
Claus, P., Kallosh, R., Rahmfeld, J.  
1999; 462 (3-4): 285-293
- **Supertwistors as quarks of SU(2,2 vertical bar 4)** *JOURNAL OF HIGH ENERGY PHYSICS*  
Claus, P., Gunaydin, M., Kallosh, R., Rahmfeld, J., Zunger, Y.  
1999
- **Conformal symmetry of supergravities in AdS spaces** *PHYSICAL REVIEW D*  
Kallosh, R., Van Proeyen, A.  
1999; 60 (2)
- **Superisometries of the AdS x S superspace** *JOURNAL OF HIGH ENERGY PHYSICS*  
Claus, P., Kallosh, R.  
1999
- **Black holes, branes and superconformal symmetry** *2nd International Conference on the Quantum Aspects of Gauge Theories, Supersymmetry and Unification*  
Kallosh, R.  
SPRINGER-VERLAG BERLIN.1999: 138–168
- **String action on adS space** *International Seminar on Supersymmetries and Quantum Symmetries held in Memory of VI Ogievetsky*  
Kallosh, R.  
SPRINGER-VERLAG BERLIN.1999: 182–188
- **Vacua of M theory and string theory** *PHYSICAL REVIEW D*  
Kallosh, R., Rajaraman, A.  
1998; 58 (12)
- **The GS string action on AdS(5)xS(5)** *PHYSICS LETTERS B*  
Kallosh, R., Rahmfeld, J.  
1998; 443 (1-4): 143-146
- **Simplifying superstring action on AdS(5) x S-5** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Tseytlin, A. A.  
1998
- **Black holes and superconformal mechanics** *PHYSICAL REVIEW LETTERS*  
Claus, P., Derix, M., Kallosh, R., Kumar, J., Townsend, P. K., Van Proeyen, A.  
1998; 81 (21): 4553-4556
- **Quantization of p-branes, D-p-branes and M-branes** *International Conference - STRINGS 97*  
Kallosh, R.  
ELSEVIER SCIENCE BV.1998: 197–205
- **Near horizon superspace** *JOURNAL OF HIGH ENERGY PHYSICS*  
Kallosh, R., Rahmfeld, J., Rajaraman, A.  
1998
- **Conformal theory of M2, D3, M5 and 'D1+D5' branes** *JOURNAL OF HIGH ENERGY PHYSICS*  
Claus, P., Van Proeyen, A., Kallosh, R., Kumar, J., Townsend, P. K.  
1998
- **Special conformal symmetry of world volume actions** *PHYSICAL REVIEW D*  
Kallosh, R., Kumar, J., Rajaraman, A.

1998; 57 (10): 6452-6454

- **M 5-brane and superconformal (0,2) tensor multiplet in six dimensions** *NUCLEAR PHYSICS B*  
Claus, P., Kallosh, R., Van Proeyen, A.  
1998; 518 (1-2): 117-150
- **Worldvolume supersymmetry** *PHYSICAL REVIEW D*  
Kallosh, R.  
1998; 57 (6): R3214-R3218
- **One-loop supergravity corrections to black hole entropy and residual supersymmetry** *PHYSICAL REVIEW D*  
Kallosh, R., Rahmfeld, J., Wong, W. K.  
1998; 57 (2): 1063-1067
- **Black holes and superstrings** *1st International Workshop on Particle Physics and the Early Universe (COSMO-97)*  
KALLOSH, R. E.  
WORLD SCIENTIFIC PUBL CO PTE LTD.1998: 495-504
- **Critical points and phase transitions in 5d compactifications of M-theory** *NUCLEAR PHYSICS B*  
Chou, A., Kallosh, R., Rahmfeld, J., Rey, S. J., Shmakova, M., Wong, W. K.  
1997; 508 (1-2): 147-180
- **Supersymmetry enhancement of D-p-branes and M-branes** *PHYSICAL REVIEW D*  
Kallosh, R., Kumar, J.  
1997; 56 (8): 4934-4941
- **kappa-symmetry, supersymmetry and intersecting branes** *NUCLEAR PHYSICS B*  
Bergshoeff, E., Kallosh, R., Ortin, T., Papadopoulos, G.  
1997; 502 (1-2): 149-169
- **Black hole superpartners and fixed scalars** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A.  
1997; 56 (6): 3509-3514
- **Covariant quantization of D-branes** *PHYSICAL REVIEW D*  
Kallosh, R.  
1997; 56 (6): 3515-3522
- **Black holes and critical points in moduli space** *NUCLEAR PHYSICS B*  
Ferrara, S., Gibbons, G. W., Kallosh, R.  
1997; 500 (1-3): 75-93
- **Classical and quantum N=2 supersymmetric black holes** *NUCLEAR PHYSICS B*  
Behrndt, K., Cardoso, G. L., Dewit, B., Kallosh, R., Lust, D., Mohaupt, T.  
1997; 488 (1-2): 236-260
- **Bound states of branes with minimal energy** *PHYSICAL REVIEW D*  
Kallosh, R.  
1997; 55 (6): R3241-R3245
- **Enhancement of supersymmetry near a 5D black hole horizon** *PHYSICAL REVIEW D*  
Chamseddine, A., Ferrara, S., Gibbons, G. W., Kallosh, R.  
1997; 55 (6): 3647-3653
- **Supersymmetric rotating black holes and attractors** *PHYSICAL REVIEW D*  
Kallosh, R., Rajaraman, A., Wong, W. K.  
1997; 55 (6): R3246-R3249
- **Moduli, scalar charges, and the first law of black hole thermodynamics** *PHYSICAL REVIEW LETTERS*  
Gibbons, G., Kallosh, R., Kol, B.

---

1996; 77 (25): 4992-4995

- **Freezing of moduli by N=2 dyons** *PHYSICAL REVIEW D*  
Kallosh, R., Shmakova, M., Wong, W. K.  
1996; 54 (10): 6284-6292
- **STU black holes and string triality** *PHYSICAL REVIEW D*  
Behrndt, K., Kallosh, R., Rahmfeld, J., Shmakova, M., Wong, W. K.  
1996; 54 (10): 6293-6301
- **Brane-antibrane democracy** *PHYSICAL REVIEW D*  
Kallosh, R., Rajaraman, A.  
1996; 54 (10): 6381-6386
- **Stationary axion/dilaton solutions and supersymmetry** *NUCLEAR PHYSICS B*  
Bergshoeff, E., Kallosh, R., Ortin, T.  
1996; 478 (1-2): 156-180
- **Superpotential from black holes** *PHYSICAL REVIEW D*  
Kallosh, R.  
1996; 54 (8): R4709-R4713
- **Supersymmetry and attractors** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R.  
1996; 54 (2): 1514-1524
- **Universality of supersymmetric attractors** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R.  
1996; 54 (2): 1525-1534
- **F&H monopoles** *NUCLEAR PHYSICS B*  
Behrndt, K., Kallosh, R.  
1996; 468 (1-2): 85-112
- **Supersymmetric balance of forces and condensation of BPS states** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A.  
1996; 53 (10): 5734-5744
- **E(7) symmetric area of the black hole horizon** *PHYSICAL REVIEW D*  
Kallosh, R., Kol, B.  
1996; 53 (10): R5344-R5348
- **O(6,22) BPS configurations of the heterotic string** *PHYSICAL REVIEW D*  
Behrndt, K., Kallosh, R.  
1996; 53 (2): R589-R592
- **Exact supersymmetric massive and massless white holes** *PHYSICAL REVIEW D*  
Kallosh, R., Linde, A.  
1995; 52 (12): 7137-7145
- **DUALITY SYMMETRICAL QUANTIZATION OF SUPERSTRINGS** *PHYSICAL REVIEW D*  
Kallosh, R.  
1995; 52 (10): 6020-6042
- **N=2 EXTREMAL BLACK-HOLES** *PHYSICAL REVIEW D*  
Ferrara, S., Kallosh, R., Strominger, A.  
1995; 52 (10): R5412-R5416
- **FERMION ZERO MODES AND THE BLACK-HOLE HYPERMULTIPLT WITH RIGID SUPERSYMMETRY** *PHYSICAL REVIEW D*  
Brooks, R., Kallosh, R., Ortin, T.



1995; 52 (10): 5797-5805

● **BLACK-HOLE MULTIPLTS AND SPONTANEOUS BREAKING OF LOCAL SUPERSYMMETRY** *PHYSICAL REVIEW D*

Kallosh, R.

1995; 52 (2): 1234-1241

● **GRAVITY AND GLOBAL SYMMETRIES** *PHYSICAL REVIEW D*

Kallosh, R., Linde, A., Linde, D., Susskind, L.

1995; 52 (2): 912-935

● **TOPOLOGY, ENTROPY, AND WITTEN INDEX OF DILATON BLACK-HOLES** *PHYSICAL REVIEW D*

Gibbons, G. W., KALLOSH, R. E.

1995; 51 (6): 2839-2862

● **DUALITY VERSUS SUPERSYMMETRY AND COMPACTIFICATION** *PHYSICAL REVIEW D*

Bergshoeff, E., Kallosh, R., Ortin, T.

1995; 51 (6): 3009-3016

● **SUPERSYMMETRY AND STATIONARY SOLUTIONS IN DILATON-AXION GRAVITY** *PHYSICAL REVIEW D*

Kallosh, R., Kastor, D., Ortin, T., Torma, T.

1994; 50 (10): 6374-6384

● **BLACK-HOLE WAVE DUALITY IN STRING THEORY** *PHYSICAL REVIEW D*

Bergshoeff, E., Kallosh, R., Ortin, T.

1994; 50 (8): 5188-5192

● **EXACT DUALITY IN THE STRING EFFECTIVE ACTION** *PHYSICAL REVIEW D*

Bergshoeff, E., Entrop, I., Kallosh, R.

1994; 49 (12): 6663-6673

● **CHARGE QUANTIZATION OF AXION-DILATON BLACK-HOLES** *PHYSICAL REVIEW D*

Kallosh, R., Ortin, T.

1993; 48 (2): 742-747

● **AXION-DILATON BLACK-HOLES** *ANNALS OF THE NEW YORK ACADEMY OF SCIENCES*

Kallosh, R.

1993; 688: 456-463

● **SUPERSYMMETRIC STRING WAVES** *PHYSICAL REVIEW D*

Bergshoeff, E. A., Kallosh, R., Ortin, T.

1993; 47 (12): 5444-5452

● **ENTROPY AND ACTION OF DILATON BLACK-HOLES** *PHYSICAL REVIEW D*

Kallosh, R., Ortin, T., Peet, A.

1993; 47 (12): 5400-5407

● **SUPERSYMMETRY AS A COSMIC CENSOR** *PHYSICAL REVIEW D*

Kallosh, R., Linde, A., Ortin, T., Peet, A., VANPROEYEN, A.

1992; 46 (12): 5278-5302

● **SUPERSYMMETRIC BLACK-HOLES** *PHYSICS LETTERS B*

Kallosh, R.

1992; 282 (1-2): 80-88

● **SUPERPARTICLE ACTIONS AND GAUGE FIXINGS** *CLASSICAL AND QUANTUM GRAVITY*

Bergshoeff, E., Kallosh, R., VANPROEYEN, A.

1992; 9 (2): 321-360

● **GEOMETRY OF SCATTERING AT PLANCKIAN ENERGIES** *PHYSICS LETTERS B*

Kallosh, R.

1992; 275 (3-4): 284-288

● **N = 1 SUPERSYMMETRY IS REALLY BROKEN TWISTED N = 2** *PHYSICS LETTERS B*

Kallosh, R.

1990; 251 (1): 134-141

● **THE COHOMOLOGY OF THE BRINK SCHWARZ SUPERPARTICLE** *PHYSICS LETTERS B*

Bergshoeff, E. A., Kallosh, R., VANPROEYEN, A.

1990; 251 (1): 128-133

● **MODIFIED FEYNMAN RULES IN SUPERGRAVITY** *NUCLEAR PHYSICS B*

KALLOSH, R. E.

1978; 141 (1-2): 141-152