

PUBLICATIONS

Most Cited Papers:

1. **Bounds on R-Parity Violating Couplings at the Weak Scale and at the GUT Scale** [210 Citations]
B.C. Allanach, A. Dedes, H.K. Dreiner,
Phys. Rev. D60 (1999) 075014, hep-ph/9906209.
2. **R-Parity Violation at Hadron Colliders** [162 Citations]
H. K. Dreiner, and G. G. Ross,
Nuclear Physics B 365 (1991) 597.
3. **Sphaleron Erasure of Primordial Baryogenesis** [155 Citations]
H. K. Dreiner and G.G. Ross,
Nuclear Physics B 410 (1993) 188.
4. **Correlations of $B_s \rightarrow \mu\mu$ and $(g-2)_\mu$ in Minimal Supergravity** [150 Citations]
A. Dedes, H. K. Dreiner, U. Nierste
Phys.Rev.Lett.87:251804,2001, hep-ph/0108037.
5. **How to find a Higgs boson with a mass between 155-GeV - 180-GeV at the LHC** [145 Citations]
M. Dittmar, Herbert K. Dreiner
Phys.Rev.D55:167-172,1997; hep-ph/9608317
6. **R-parity violation at HERA** [124 Citations]
J. Butterworth, Herbert K. Dreiner
Nucl.Phys.B397:3-34,1993; hep-ph/9211204
7. **Chargino pair production in e+ e- collisions** [106 Citations]
S.Y. Choi, A. Djouadi, Herbert K. Dreiner, J. Kalinowski, P.M. Zerwas
Eur.Phys.J.C7:123-134,1999; hep-ph/9806279
8. **High Q^2 Anomaly at HERA and Supersymmetry** [103 Citations]
Herbert K. Dreiner, P. Morawitz
Nucl.Phys.B503:55-78,1997; hep-ph/9703279

Review Articles:

1. **An Introduction to explicit R-parity violation** [327 Citations]
Herbert K. Dreiner
Published in 'Perspectives on Supersymmetry', Ed. by G.L. Kane, World Scientific;
hep-ph/9707435
2. **Two-component spinor techniques and Feynman rules for quantum field theory and supersymmetry**
Herbi K. Dreiner, Howard E. Haber, Stephen P. Martin
Accepted for publication in Physics Reports
arXiv:0812.1594 [hep-ph] (246pp)

Articles on Outreach:

- O1. **A Physics Show Performed by Students for Kids: From Mechanics to Elementary Particle Physics**
H. K. Dreiner
The Physics Teacher 46:358,2008, e-print: physics/0701344
- O2. **It's Physikshow Time in Germany**
H. K. Dreiner
CERN Courier, October, 2007
- O3. **Fun Physics in School: Students perform for Students**
H. K. Dreiner and T. Strehlau
Science in School, Iss. 9:46-49,2008

Papers in Refereed Journals (in order of appearance)

1. **Indirect Searches for Leptoquarks at Present and Future Colliders**
H. K. Dreiner, J. Ellis, D. Nanopoulos, N. Tracas, and N. Vlachos,
Modern Physics Letters 3 A, (1988) 443.
2. **$b \rightarrow s\gamma$ in Superstring Inspired Models**
H. K. Dreiner,
Modern Physics Letters 3 A (1988) 867.
3. **String Model Building in the Free Fermionic Formulation**
H. K. Dreiner, J. L. Lopez, D. V. Nanopoulos, and D. B. Reiss,
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4. **No Massless Scalar Adjoints for N=1, D=4 Heterotic Strings in the Free Fermionic Formulation**
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5. **The Spin of the Proton in a Hybrid Chiral Bag Model**
H. Dreiner, J. Ellis, and R. A. Flores,
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6. **R-Parity Violation at Hadron Colliders**
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7. **Top Quark Searches and R-Parity Violation at Hadron Colliders**
H. Dreiner, and R. J. N. Phillips ,
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8. **Testing Locality at Colliders via Bell's Inequality**
S. Abel, M. Dittmar, and H.K. Dreiner,
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9. **How well do we know the Three-gluon Vertex?**
H.K. Dreiner, A. Duff, and D. Zeppenfeld,
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10. **R-Parity Violation at HERA**
J. Butterworth and H.K. Dreiner;
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11. **Sphaleron Erasure of Primordial Baryogenesis**
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12. **Ansatz for Quark, Charged Lepton, and Neutrino Masses in SUSY GUTS**
H.K. Dreiner, G.K. Leontaris, and N.D. Tracas;
Mod. Phys. Lett. A 8 (1993) 2099.
13. **Like-Sign Dilepton Signature for Gluino Production at the LHC with or without R-Parity Conservation**
H.K. Dreiner, M. Guchait, and D.P. Roy;
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14. **Signals for Supersymmetry at HERA**
H.K. Dreiner and P. Morawitz,
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15. **Neutrino Masses from Gauge Symmetries**
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16. **Anomaly-Free Gauged U(1)-prime in Local Supersymmetry and Baryon Number Violation**
A. H. Chamseddine, and H.K. Dreiner,
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17. **Anomaly-Free Gauged R symmetry in Local Supersymmetry**
A. H. Chamseddine, and H.K. Dreiner,
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18. **Chargino Pair Production at LEP2 with Broken R-Parity: 4-Jet Final States**
Herbi K. Dreiner and Peter Morawitz,
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19. **A New Mechanism to Solve the Small Scale problem of Local Supersymmetry**
A. Chamseddine and Herbi K. Dreiner,
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20. **How to Find the Standard Model Higgs Boson with a Mass Between 155 - 180 GeV at the LHC**
Michael Dittmar and Herbi K. Dreiner,
Phys. Rev. D 55 (1997) 167; hep-ph/9608317.

21. **High Q^2 Anomaly at HERA and Supersymmetry**
Herbi K. Dreiner and Peter Morawitz,
Nucl. Phys. B 503 (1997) 55; hep-ph/9703279.
22. **Report of the 1997 LEP-2 Working Group on ‘Searches’**
B. Allanach et al,
J. Phys. G24 (1998) 421; hep-ph/9708250.
23. **Single Sneutrino and Slepton Production at LEP-2 and the NLC**
B. Allanach, H. K. Dreiner and M. Williams,
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24. **Chargino Pair Production in e^+e^- Collisions**
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25. **Two-Loop Supersymmetric Renormalization Group Equations including R-Parity Violation and Aspects of Unification**
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26. **Bounds on R-Parity Violating Couplings at the Weak Scale and at the GUT Scale**
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D. Choudhury, H.K. Dreiner, P. Richardson, S. Sarkar,
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28. **Parton Shower Simulations of R-Parity Violating Supersymmetric Models**
Herbi K. Dreiner, Peter Richardson, Michael H. Seymour,
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29. **Dipole Moments of the Electron, Neutrino and Neutron in the MSSM without R-parity Symmetry**
S.A. Abel, A. Dedes, H.K. Dreiner,
JHEP 0005:013,2000; hep-ph/9912429.
30. **Resonant Slepton Production in Hadron-Hadron Collisions**
H.K. Dreiner, P.Richardson, M.H. Seymour,
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31. **A Light Bottom Squark in the MSSM**
A. Dedes, and H. K. Dreiner
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32. **Attempts at Explaining the NuTeV Observation of Dimuon Events**
A. Dedes, H. K. Dreiner, Peter Richardson,
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33. **Correlations of $B_s \rightarrow \mu\mu$ and $(g-2)_\mu$ in Minimal Supergravity**
A. Dedes, H. K. Dreiner, U. Nierste
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34. **Bounds on Broken R-parity from Leptonic Meson Decays**
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35. **Status of a Supersymmetric Flavour Violating Solution to the Solar Neutrino Puzzle with Three Generations**
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36. **Supernovæ and Light Neutralinos: SN1987A Bounds on Supersymmetry Revisited**
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H. K. Dreiner, M. Thormeier,
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38. **The R Parity Violating Minimal Supergravity Model**
B.C. Allanach, A. Dedes, H.K. Dreiner,
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39. **Anomalous Flavor U(1)(X) For Everything**
Herbi K. Dreiner, Hitoshi Murayama, Marc Thormeier,
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40. **What is the Discrete Gauge Symmetry of the MSSM?**
Herbi K. Dreiner, Christoph Luhn, Marc Thormeier,
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41. **Mass Spectrum in R-Parity Violating mSUGRA and Benchmark Points**
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42. **Discovery potential of radiative neutralino production at the ILC**
Herbi K. Dreiner, Olaf Kittel, Ulrich Langenfeld
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43. **Baryon triality and neutrino masses from an anomalous flavor U(1)**
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44. **Supersymmetric NLO QCD corrections to resonant slepton production and signals at the Tevatron and the LHC**
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H.K. Dreiner, M. Kramer, Ben O'Leary
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46. **A Physics Show Performed by Students for Kids: From Mechanics to Elementary Particle Physics**
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The Physics Teacher 46:358,2008, e-print: physics/0701344
47. **The Role of Beam polarization for Radiative Neutralino Production at the ILC**
Herbert K. Dreiner, Olaf Kittel, Ulrich Langenfeld
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48. **Supersymmetric Jarlskog invariants: The Neutrino sector**
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Herbi K. Dreiner, Christoph Luhn, Hitoshi Murayama, Marc Thormeier
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50. **Electroweak contributions to squark pair production at the LHC**
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Phys. Rev. D **76** (2007) 095020; arXiv:0709.2544 [hep-ph].
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53. **Stau LSP Phenomenology: Two versus Four-Body Decay Modes. Example: Resonant Single Slepton Production at the LHC**
H.K. Dreiner, S. Grab, M.K. Trenkel
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54. **Sneutrino LSPs in R-parity violating minimal supergravity models**
Markus A. Bernhardt, Siba Prasad Das, Herbi K. Dreiner, Sebastian Grab
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55. **Fun Physics in School: Students perform for Students**
H. K. Dreiner and T. Strehlau
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56. **Sneutrino as Lightest Supersymmetric Particle in B(3) mSUGRA Models and Signals at the LHC**
M.A. Bernhardt, S.P. Das, H.K. Dreiner, S. Grab
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57. **All Possible Lightest Supersymmetric Particles in R-Parity Violating mSUGRA**
Herbi K. Dreiner, Sebastian Grab
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58. **Two-component spinor techniques and Feynman rules for quantum field theory and supersymmetry**
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59. **Mass Bounds on a Very Light Neutralino**
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- W2. **R-Parity Violation at a 500 GeV e^+e^- -Collider**,
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- W3. **Finding Supersymmetry at HERA via R-Parity Violation**,
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- W4. **Bell’s Inequality and τ Physics at LEP**,
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- W5. **Phenomenology of the MSSM with Broken R-Parity**,
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- W17. **Report of the Tevatron Higgs Working Group**
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- W18. **Attempts at Explaining the NuTeV Observation of Dimuon Events**
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- W19. **The Beyond the Standard Model Working Group**
G. Azuelos, H.K. Dreiner *et al.*,
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- W20. **How light can the lightest neutralino be?**
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- W21. **Polarization aspects in radiative neutralino production**
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- E1. **Chiral Fermions Imply No Massless Scalar Adjoint in the Free Fermionic Formulation of the Heterotic Superstring**,
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- E5. **Viable Signals for Supersymmetry at HERA**,
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- E7. **Two-Loop Supersymmetric Renormalization Group Equations Including R-parity Violation and Aspects of Unification**
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- E13. **R-Parity violating minimal supergravity at the LHC**
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- E14. **Electroweak contributions to squark pair production**
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- E15. **A Simple baryon triality model for neutrino masses**
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