

Publications List

Dr. B.C. Allanach

Papers Awaiting Publication

1. B.C. Allanach, F. Mahmoudi, J.P. Skittrall and K. Sridhar, “Gluon-initiated production of a Kaluza-Klein gluon in a Bulk Randall-Sundrum model”, [arXiv:0910.1350](#)
2. S.S. AbdusSalam, B.C. Allanach, F. Quevedo, F. Feroz and M. Hobson, “Fitting the Phenomenological MSSM”, [arXiv:0904.2548](#).

Journal-Published Papers

3. B. C. Allanach and M. A. Bernhardt, “Including R -parity violation in the numerical computation of the spectrum of the minimal supersymmetric standard model: SOFTSUSY3.0”, *Comp. Phys. Comm.* **181** (2010) 232, [arXiv:0903.1805](#).
4. B. C. Allanach, C. H. Kom and H. Päs, “LHC and B physics probes of neutrinoless double beta decay in supersymmetry without R-parity”, *JHEP* **0910** (2009) 026, [arXiv:0903.0347](#).
5. B. C. Allanach, C. H. Kom and H. Päs, “Large Hadron Collider probe of supersymmetric neutrinoless double beta decay mechanism”, *Phys. Rev. Lett.* **103** (2009) 091801, [arXiv:0902.4697](#).
6. S.S. AbdusSalam, B.C. Allanach, M.J. Dolan, F. Feroz and M.P. Hobson, “Selecting a Model of Supersymmetry Breaking Mediation”, *Phys. Rev.* **D80** (2009) 035017, [arXiv:0906.0957](#).
7. B.C. Allanach, G. Hiller, D.R.T. Jones and P. Slavich, “Flavour Violation in Anomaly Mediated Supersymmetry Breaking”, *JHEP* **04** (2009) 088, [arXiv:0902.4880](#).
8. B.C. Allanach and D. Hooper, “Panglossian Prospects for Detecting Neutralino Dark Matter in Light of Natural Priors”, *JHEP* **10** (2008) 071, [arXiv:0806.1923](#) [hep-ph]
9. F. Feroz, B.C. Allanach, M. Hobson, S.S. Abdussalam, R. Trotta and A. M. Weber, “Bayesian Selection of sign(μ) within mSUGRA in Global Fits Including WMAP5 Results”, *JHEP* **10** (2008) 064, [arXiv:0807.4512](#) [hep-ph]
10. B.C. Allanach, M. Dolan and A. Weber, “Global Fits of the Large Volume String Scenario to WMAP5 and Other Indirect Constraints Using Markov Chain Monte Carlo”, *JHEP* **08** (2008) 015, [arXiv:0806.1184](#) [hep-ph]
11. B.C. Allanach *et al*, “SUSY Les Houches Accord 2”, *Comp. Phys. Comm.* **180** (2009) 8, [arXiv:0801.0045](#) [hep-ph]
12. B. C. Allanach and C. G. Lester, “Sampling Using a ‘Bank’ of Clues”, *Comp. Phys. Comm.* **179** (2008) 256, [arXiv:0705.0486](#) [hep-ph]
13. B.C. Allanach and J. P. Skittrall, “ Z boson decay to photon plus Kaluza-Klein graviton: large extra dimensional bounds”, *Eur. Phys. Jnl.* **C55** (2008) 107, [arXiv:0709.1953](#) [hep-ph]
14. B.C. Allanach and C.H. Kom, “Lepton number violating mSUGRA and neutrino masses”, *JHEP* **04** (2008) 081, [arXiv:0712.0852](#) [hep-ph]
15. B.C. Allanach, J.P. Conlon and C.G. Lester, “Measuring Smuon-Selectron Mass Splitting at the LHC and Patterns of Supersymmetry Breaking”, *Phys. Rev.* **D77** (2008) 076006, [arXiv:0801.366](#) [hep-ph]
16. B. C. Allanach, J.P. Skittrall and K. Sridhar, “ Z boson decay to photon plus Kaluza-Klein graviton in large extra dimensions”, *JHEP* **0711** (2007) 089, [arXiv:0705.1953](#) [hep-ph]

17. J.P. Conlon, C. H. Kom, K. Suruliz, B. C. Allanach and F. Quevedo, “Sparticle Spectra and LHC Signatures for Large Volume String Compactifications”, *JHEP* **08** (2007) 061, [arXiv:0704.3403](#) [hep-ph]
18. B. C. Allanach, K. Cranmer, C. G. Lester and A. Weber, “Natural Priors, CMSSM Fits and LHC Weather Forecasts”, *JHEP* **08** (2007) 023, [arXiv:0705.0487](#) [hep-ph]
19. T. Akesson *et al*, “Towards the European Strategy for Particle Physics: the Briefing Book”, *Eur. J. C* **51** (2007) 421, [hep-ph/0609216](#)
20. B. C. Allanach, M. A. Bernhardt, H. K. Dreiner, C. H. Kom and P. Richardson, “Mass Spectrum in R -parity Violating mSUGRA and Benchmark Points”, *Phys. Rev.* **D75** (2007) 035002, [hep-ph/0609263](#).
21. B. C. Allanach, C. G. Lester and A. M. Weber, “The Dark Side of mSUGRA”, *JHEP* **12** (2006) 065, [hep-ph/0609295](#).
22. J.A. Aguilar-Saavedra *et al*, “Supersymmetry Parameter Analysis: SPA Convention and Project”, *Eur. Phys. J.* **C46** (2006) 43, [hep-ph/0511344](#)
23. B.C. Allanach, F. Quevedo and K. Suruliz, “Low-Energy Supersymmetry Breaking from String Flux Compactifications: Benchmark Scenarios”, *JHEP* **04** (2006) 040, [hep-ph/0512081](#)
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27. B.C. Allanach, G. Belanger, F. Boudjema and A. Pukhov, “Requirements on collider data to match the precision of WMAP on supersymmetric dark matter”, *JHEP* **12** (2004) 020, [hep-ph/0410091](#)
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29. The LHC/LC Study Group, G. Weiglein *et al*, “Physics Interplay of the LHC and the ILC”, *Phys. Rept.* **426** (2006) 47, [hep-ph/0410364](#)
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31. P. Skands *et al*, “SUSY Les Houches Accord: Interfacing SUSY Spectrum Calculators, Decay Packages, and Event Generators”, *JHEP* **07** (2004) 036, [hep-ph/0311123](#)
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33. B.C. Allanach, A. Dedes and H.K. Dreiner, “ R -Parity Violating Minimal Supergravity”, *Phys. Rev.* **D69** (2004) 115002, [hep-ph/0309196](#)
34. B.C. Allanach, M. Guchait and K. Sridhar, “Resonant slepton production at the LHC in models with an ultralight gravitino”, *Phys. Lett.* **B586** (2004) 373, [hep-ph/0311254](#)
35. B.C. Allanach, S. Kraml and W. Porod, “Theoretical uncertainties in sparticle mass predictions from computational tools”, *JHEP* **03** (2003) 016, [hep-ph/0302102](#)
36. B. C. Allanach, K. Odagiri, M. J. Palmer, M. A. Parker, A. Sabetfakhri and B. R. Webber, “Exploring small extra dimensions at the Large Hadron Collider,” *JHEP* **0212** (2002) 039, [hep-ph/0211205](#)
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39. B.C. Allanach *et al*, “The Snowmass Points and Slopes: Benchmarks for SUSY Searches”, *Eur.*

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Reviews and Proceedings

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72. B.C. Allanach, “SUSY Predictions and SUSY Tools at the LHC”, *Eur. Phys. Jnl.* **C59** (2009) 427, [arXiv:0805.2088](#) [[hep-ph](#)]
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92. M. Kuze, S. Lola, E. Perez and B. C. Allanach, “Physics at high Q^2 and p_t^2 : Summary of DIS 2000”, hep-ph/0007282
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Other Publications

102. “Particle hunting at the LHC”, Millenium Mathematics Project Plus magazine article, June 2009 edition.

103. "Do The Space Warp", News and Views article for Nature Physics, Vol. 1, No. 1, pp 15-16, Oct 2005.
104. Book review: "The 2002 Centennial Dirac Symposium", CERN Courier, Sept 2004
105. Newspaper article: "Quantum Catastrophe", Times Higher Education Supplement, 7 Sept. 2001
106. Transcription of Dirac Memorial lecture by B Zumino, Cambridge University Press, 2000