Joel W. Walker Assistant Professor Department of Physics Sam Houston State University

Degrees Earned

Ph.D. in Physics, Texas A&M University, 2005

B.S. in Physics, Harding University, 1997

Article Preprints (8)

- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., The Ultra-High Jet Multiplicity Signal of Stringy No-Scale F-SU(5) at the $\sqrt{s}=7$ TeV LHC , Under Review at: *Physical Review D* [arXiv:1103.4160]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., Ultra High Jet Signals from Stringy No-Scale Supergravity, To be resubmitted to: *Physical Review Letters* [arXiv:1103.2362]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., Blueprints of the No-Scale Multiverse at the LHC, Under Review at: *Physical Review D* [arXiv:1101.2197]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., The Unification of Dynamical Determination and Bare Minimal Phenomenological Constraints in No-Scale F-SU(5), Under Review at: *Physical Review D* [arXiv:1105.3988]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., The Race for Supersymmetric Dark Matter at XENON100 and the LHC: Stringy Correlations from No-Scale F-SU(5), Under Review at: *Physical Review D* [arXiv:1106.1165]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., A Two-Tiered Correlation of Dark Matter with Missing Transverse Energy: Reconstructing the Lightest Supersymmetric Particle Mass at the LHC, Under Review at: *Journal of High Energy Physics* [arXiv:1107.2375]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., Prospects for Discovery of Supersymmetric No-Scale F-SU(5) at The Once and Future LHC, Under Review at: *Physics Letters B* [arXiv:1107.3825]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., Has SUSY Gone Undetected in 9-jet Events? A Ten-Fold Enhancement in the LHC Signal Efficiency, To be submitted to: *Physical Review D* [arXiv:1108.5169]

Peer-Review Article (13) and Conference Proceeding (1) Publications

- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., Super No-Scale F-SU(5): A Dynamic Determination of $M_{1/2}$ and tan β , *Physics Letters*, B703:469-474, 2011 [arXiv:1010.4550]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., The No-Scale Multiverse at the LHC, *Journal of Physics: Conference Series*, 306, 2011 [arXiv:1104.0231]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., The Golden Strip of Correlated Top Quark, Gaugino, and Vectorlike Mass In No-Scale, No-Parameter F-SU(5), *Physics Letters*, B699:164-168, 2011 [arXiv:1009.2981]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., The Golden Point of No-Scale and No-Parameter F-SU(5), *Physical Review*, D83, 056015, 2011 [arXiv:1007.5100]
- Li, Tianjun and Maxin, J.A. and Nanopoulos, D.V. and Walker, J.W., Dark Matter, Proton Decay and Other Phenomenological Constraints in F-SU(5), *Nuclear Physics*, B848:314-331, 2011 [arXiv:1003.4186]
- Li, Tianjun and Nanopoulos, D.V. and Walker, J.W., Elements of F-ast Proton Decay, *Nuclear Physics*, B846:43-99, 2011 [arXiv:1003.2570]

Li, Tianjun and Nanopoulos, D.V. and Walker, J.W., F-ast Proton Decay, *Physics Letters*, B693:580-583, 2010 [arXiv:0910.0860]

Cleaver, G.B and Nanopoulos, D.V. and Perkins, J.T and Walker, J.W., On Geometrical Interpretation of Non-Abelian Flat Direction Constraints, *International Journal of Modern Physics*, A23:3461-3492, 2008 [hep-th/0512020]

Chen, C.-M. and Kraniotis, G.V. and Mayes, V.E. and Nanopoulos, D.V. and Walker, J.W., A K-theory Anomaly Free Supersymmetric Flipped SU(5) Model from Intersecting Branes, *Physics Letters*, B625:96-105, 2005 [hep-th/0507232]

Chen, C.-M. and Kraniotis, G.V. and Mayes, V.E. and Nanopoulos, D.V. and Walker, J.W., A Supersymmetric Flipped SU(5) Intersecting Brane World, *Physics Letters*, B611:156-166, 2005 [hep-th/0501182]

Ellis, J.R. and Nanopoulos, D.V. and Walker, J.W, Flipping SU(5) out of Trouble, *Physics Letters*, B550:99-107, 2002 [hep-ph/0205336]

Cleaver, G.B and Faraggi, A.E. and Nanopoulos, D.V. and Walker, J.W., Phenomenology of Non-Abelian Flat Directions in a Minimal Superstring Standard Model, *Nuclear Physics*, B620:259-289, 2002 [hep-ph/0104091]

Cleaver, G.B and Faraggi, A.E. and Nanopoulos, D.V. and Walker, J.W., A Minimal Superstring Standard Model II: A Phenomenological Study, *Nuclear Physics*, B593:471-504, 2001 [hep-ph/9910230]

Cleaver, G.B and Faraggi, A.E. and Nanopoulos, D.V. and Walker, J.W., Non-Abelian Flat Directions in a Minimal Superstring Standard Model, *Modern Physics Letters*, A15:1191-1202, 2000 [hep-ph/0002060]

Research Presentations

"Monitoring Your CMS Tier 3 Site", CMS Tier 3 Workshop, Texas Tech University, Summer 2011

"Super No-Scale F-SU(5): Resolving the Hierarchy Problem by Dynamic Determination of $M_{1/2}$ and Tan β ", Colloquium, Arizona State University Department of Physics, Fall 2010

"The Golden Strip of Correlated Top Quark, Gaugino, and Vectorlike Mass In No-Scale, No-Parameter F-SU(5)", Colloquium, Baylor University Department of Physics, Fall 2010

"F-ast Proton Decay", PHENO 2010 Symposium, University of Wisconsin-Madison, Spring 2010

"F-ast Proton Decay", Sam Houston State University Department of Physics, Fall 2009

"On Geometrical Interpretation of Non-Abelian D- and F- Flat Direction Constraints", Texas Regional APS meeting, Baylor University, Fall 2004

Work or Professional Experiences

2007-Present, Assistant Professor of Physics, Sam Houston State University

2005-2007, Visiting Assistant Professor of Physics, Sam Houston State University

1997-2005, Graduate Assistant (Teaching, Research, Computer Support, Machine Shop), Texas A&M University Department of Physics