Tom Mainiero

Curriculum Vitae

Education

2015	Ph.D, Physics; Advisor: Andrew Neitzke
2008	Caltech: BS Degree in Physics

Employment

2015-Present	Rutgers New High Energy Theory Center, Department of Physics: Postdoctoral Researcher.

Contact

UT Austin, Department of Physics, Theory Group.

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Preprints/Publications

In Progress

T. Mainiero *Cohomological tools for the Quantum Mechanic: detecting entanglement*.

T. Mainiero. *Algebraicity and Asymptotics: An explosion of BPS indices from algebraic generating series*. arXiv:1606.02693 [hep-th].

D. Galakhov, P. Longhi, T. Mainiero, G.W. Moore, and A. Neitzke. *Wild Wall Crossing and BPS Giants*. JHEP 2013(11). arXiv:1305.5454 [hep-th].

T. Mainiero and M. A. Porter. *Quantization of a Free Particle Interacting Linearly with a Harmonic Oscillator*. Chaos 2007(17). arXiv:nlin/0702025.

Contributed Talks

Oct. 2016	Arizona State University Differential Geometry and Control Theory Seminar. *(Dr.) Strange Duality or: how I learned to stop dozing off and learned to love (the) Boolean algebras.*
Nov. 2015	Arizona State University Differential Geometry and Control Theory Seminar. *Morse(t) I listen to this talk?*
Nov. 2014	Kansas State Mathematics M-Seminar. *This one weird trick has algebraic functions generating Donaldson-Thomas invariants from home!*
Sep. 2014	Texas A&M High Energy Theory Seminar. *The Joy of Watching your BPS States Grow Up*.
Jul. 2014	WCATSS TFT Summer School. *Quantum Chern Simons*.
May 2014	Emphasis Year Workshop on Rep. Theory, Integrable Systems, and Quantum Fields. *Functional Equations and DT-Invariants from Spectral Networks: Revenge of the m-herds*.

Teaching Experience

Spr. 15	TA for M427L, Advanced Calculus for Applications II (Multivariable Calculus)
Fall 13 - Spr. 13	DRP Mentor (mentoring program for undergraduates interested in mathematics)

Fall 13	TA for M427K, Advanced Calculus for Applications I (Differential Equations)
Fall 12	TA for M408D, Sequences, Series, and Multivariable Calculus
Fall 10 - Spr. 12	Instructor for PS 303, Introduction to Physical Science (Mechanics)
Fall 08 - Sum. 10	TA for PHY 303K/L, Engineering Physics I/II (Mechanics/Electromagnetism)