High Energy Physics - Theory

Linear Sigma Models with Torsion

Callum Quigley, Savdeep Sethi

(Submitted on 4 Jul 2011 (v1), last revised 24 Oct 2011 (this version, v3))

Gauged linear sigma models with (0,2) supersymmetry allow a larger choice of couplings than models with (2,2) supersymmetry. We use this freedom to find a fully linear construction of torsional heterotic compactifications, including models with branes. As a non-compact example, we describe a family of metrics which correspond to deformations of the heterotic conifold by turning on H-flux. We then describe compact models which are gauge-invariant only at the quantum level. Our construction gives a generalization of symplectic reduction. The resulting spaces are non-Kahler analogues of familiar toric spaces like complex projective space. Perturbatively conformal models can be constructed by considering intersections.

Comments:	40 pages, LaTeX, 1 figure; references added; a new section on supersymmetry added
Subjects:	**High Energy Physics - Theory (hep-th)**; Algebraic Geometry (math.AG)
Cite as:	**arXiv:1107.0714 [hep-th]**
	(or **arXiv:1107.0714v3 [hep-th]** for this version)

Submission history

From: Savdeep Sethi [view email]
[v1] Mon, 4 Jul 2011 19:55:02 GMT (35kb,D)
[v2] Mon, 18 Jul 2011 19:58:24 GMT (35kb,D)
[v3] Mon, 24 Oct 2011 21:13:04 GMT (40kb,D)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.

Download:

- PDF
- Other formats

Current browse context:
hep-th
< prev | next >
new | recent | 1107

Change to browse by:
math
math.AG

References & Citations
- INSPIRE HEP (refers to | cited by)
- NASA ADS

Bookmark(what is this?)