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Abstract.

1. Introduction

Acknowledgements.

2. Symplectic Toric Manifolds & Orbifolds

3. Hypertoric Manifolds & Symplectic Cutting

3.1. **Symplectic Toric Manifolds.**

3.2. **Symplectic Toric Orbifolds.**

The symplectic toric manifolds and their associated Delzant polytopes in the previous subsection were generalised to symplectic toric orbifolds in [1], where the associated polytope *non-basic*, that is we weaken the conditions on the edge vectors to each vertex so that they no longer need to be form a $\mathbb{Z}$-basis.

4. Index Theory and Equivariant Localisation

4.1. **Equivariant Index Formula.**

Let T be an n-torus, M a T-manifold equipped with pre-quantisation data $(\mathcal{L}, \langle\ ,\ \rangle, \nabla)$ and a T-equivariant complex structure.

References

[1] Eugene Lerman and Susan Tolman. Hamiltonian torus actions on symplectic orbifolds and toric varieties. *Trans. Amer. Math. Soc.*, 349(10):4201–4230, 1997.

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