



Toric Deligne-Mumford stacks and the better behaved version of the GKZ hypergeometric system

R. Paul Horja

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We generalize the combinatorial description of the orbifold (Chen--Ruan) cohomology and of the Grothendieck ring of a Deligne--Mumford toric stack and its associated stacky fan in a lattice N in the presence of a deformation parameter $\beta \in N \otimes \mathbb{C}$. As an application, we construct a topological mirror symmetry map that produces a complete system of Γ -series solutions to the better behaved version of the GKZ hypergeometric system for $\beta \in N \otimes \mathbb{C}$.

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