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Title:

Higher dimensional Calabi-Yau manifolds of Kummer type

Abstract:

We construct Calabi-Yau manifolds of arbitrary dimensions as a resolution of a quotient of a product of a K3 surface and (n-2)-elliptic curves with a strictly non-symplectic automorphism of order 2, 3, 4 or 6. This construction generalize a result of Cynk and Hulek and the classical construction of Borcea and Voisin.

Using Chen-Ruan orbifold cohomology we compute the Hodge numbers of all constructed examples and give a method to compute the local Zeta functions.