

1038-14-191

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University of Missouri, Columbia, MO 65211. *Toroidalization of Locally Toroidal Morphisms from
 N -folds to Surfaces.*

Let X and Y be nonsingular varieties over an algebraically closed field k of characteristic zero. A *toroidal structure* on X is a simple normal crossing divisor D_X on X . Let D_X and D_Y be toroidal structures on X and Y . A dominant morphism $f : X \rightarrow Y$ is *toroidal* (with respect to the toroidal structures D_X and D_Y) if for all closed points $p \in X$, f is isomorphic to a toric morphism of toric varieties at p and $f(p)$ (specified by the toroidal structures D_X and D_Y).

Let $f : X \rightarrow Y$ be a dominant morphism. Suppose that there exist finite open covers $\{U_i\}$ and $\{V_i\}$ of X and Y respectively such that $f(U_i) \subset V_i$ and the restricted morphisms $f : U_i \rightarrow V_i$ are toroidal for all i . f is then called *locally toroidal*.

Given a locally toroidal morphism $f : X \rightarrow Y$, Dale Cutkosky asked whether there exist sequences of blow ups with nonsingular centers $\pi : Y_1 \rightarrow Y$ and $\pi_1 : X_1 \rightarrow X$ so that the induced map $f_1 : X_1 \rightarrow Y_1$ is toroidal.

In this paper, we answer the question in the affirmative when Y is a surface and X has arbitrary dimension. (Received February 09, 2008)