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65211. *Efficient toroidalization of morphisms.*

Suppose that $f : X \rightarrow Y$ is a morphism of varieties. f is toroidal if f is formally locally isomorphic to a morphism of toric varieties (f is locally monomial). A toroidalization of a morphism $f : X \rightarrow Y$ is a sequence of blow ups of nonsingular centers $X_1 \rightarrow X$ and $Y_1 \rightarrow Y$ such that there is an induced morphism $f_1 : X_1 \rightarrow Y_1$ which is toroidal. We discuss our proof that a morphism of 3-folds can be toroidalized. We especially discuss invariants which occur in the proof, and possible generalizations to higher dimensions. (Received September 28, 2005)