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Claudiu Raicu* (claudiu@math.berkeley.edu), Department of Mathematics, University of California, Berkeley, 970 Evans Hall #3840, Berkeley, CA 94720-3840. *Affine Toric Equivalence Relations are Effective.*

Any map of schemes $X \rightarrow Y$ defines an equivalence relation $R = X \times_Y X \subset X \times X$, the relation of “being in the same fiber”. Kollár asked whether all finite equivalence relations have this form (are effective). The answer to this question is in general negative, but is affirmative in the case of affine toric equivalence relations on affine toric varieties. I will explain the relationship between this result and the vanishing of the first cohomology group in the Amitsur complex associated to a toric map of toric algebras, and present some examples of noneffective equivalence relations. (Received April 12, 2010)