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**Jen-Chieh Hsiao, Karl Schwede and Wenliang Zhang\*** (wlzhang@umich.edu), 2074 East Hall, 530 Church Street, Ann Arbor, MI 48109. *Cartier Modules on Toric Varieties*.

Let  $(X, \Delta)$  be a pair of an affine toric variety  $X = \text{Spec}(R)$  of characteristic  $p > 0$  and an effective toric divisor on  $X$  such that  $K_X + \Delta$  is  $\mathbb{Q}$ -Cartier. Let  $\phi : R \rightarrow R$  be a  $p^{-e}$ -linear map corresponding to  $\Delta$ . We give complete descriptions of ideals  $I$  such that  $\phi(I) = I$  in terms of the combinatorics of the underlying cone and in terms of resolutions of singularities of  $X$ . (Received August 31, 2010)