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Thomas Kahle and **Robert Krone*** (krone@math.gatech.edu), Georgia Tech - School of Math, 686 Cherry Street, Atlanta, GA 30309, and **Anton Leykin**. *Equivariant lattice generators and Markov bases*.

It has been shown recently that monomial maps in a large class respecting the action of the infinite symmetric group have, up to symmetry, finitely generated kernels. We study the simplest nontrivial family in this class: the maps given by a single monomial. Considering the corresponding lattice map, we explicitly construct an equivariant lattice generating set, whose width (the number of variables necessary to write it down) depends linearly on the width of the map. In the case of width two, we construct an explicit finite set of binomials generating the toric ideal up to symmetry. Both width and degree of this generating set are sharply bounded by linear functions in the exponents of the monomial. (Received September 02, 2014)