1106-14-2252 **Marie Kelly Mauhar*** (marie.mauhar@my.lr.edu), 157 Chestnut Ridge Rd., Mills River, NC 28759. *H-Representation of the Kimura-3 Polytope.*

Given a group-based Markov model on a tree, one can compute the vertex representation of a polytope which describes the associated toric variety. The half-space representation, however, is not easily computable. In the case of $\mathbb{Z}$ or $\mathbb{Z}_2 \times \mathbb{Z}_2$, these polytopes have applications in the field of phylogenetics. We provide a half-space representation for the m-claw tree where $G = \mathbb{Z}_2 \times \mathbb{Z}_2$, which corresponds to the Kimura-3 model of evolution. (Received September 16, 2014)