Milena Hering*, The Mathematical Sciences Research Institute, 17 Gauss Way, Berkeley, CA 94720, and Benjamin Howard. The caterpillar polytope and its relatives.

To a trivalent tree on n leaves with a positive weight attached to each leaf is associated a lattice polytope. The corresponding toric embeddings arise as toric degenerations of the moduli space of n weighted ordered points on \mathbb{P}^1 . I will discuss the Ehrhart polynomials of these polytopes and show that the toric ideals admit a quadratic Gröbner basis. This is joint work with Ben Howard. (Received March 02, 2009)