

Tropical Jacobians, Theta Divisors, and the Poincaré Formula

Andreas Gross¹, Farbod Shokrieh²

¹ Colorado State University

² Cornell University

Poincaré's formula relates the homology classes of the loci of effective divisors on the Jacobian of a curve with powers of the homology class of the theta divisor. In the tropical world, there are analogous versions of Jacobians, theta divisors, and homology, so it is possible to state an analogous formula using these tropical objects. In my talk, I will present joint work with Farbod Shokrieh in which we prove that this tropical Poincaré formula does indeed hold.