1117-05-334   **Chi Ho Yuen*** (`cyuen7@math.gatech.edu`). *Geometric Bijections Between Spanning Trees and Break Divisors.*

The Jacobian group $\mathrm{Jac}(G)$ of a finite graph G is a group whose cardinality is the number of spanning trees of G. The graph G also has a tropical Jacobian which has the structure of a real torus; using the notion of break divisors, one can obtain a polyhedral decomposition of the tropical Jacobian where vertices and cells correspond to the elements of $\mathrm{Jac}(G)$ and the spanning trees of G, respectively. In this talk, I will discuss some aspects of this decomposition, including new combinatorial bijections between spanning trees and $\mathrm{Jac}(G)$, some possible applications in algebraic geometry, and generalizations to regular matroids. (Received January 17, 2016)