

1123-05-191

Bo Lin*, Department of Mathematics, University of California, Berkeley, Berkeley, CA 94720.

Computing Linear Systems on Metric Graphs.

The linear system $|D|$ of a divisor D on a metric graph has the structure of a cell complex. We introduce the anchor divisors and anchor cells in it - they serve as the landmarks for us to compute the f-vector of the complex and find all cells in the complex. A linear system can also be identified as a tropical convex hull of rational functions. We compute its extremal generators using the landmarks. We apply these methods to some examples - namely the canonical linear systems of some small trivalent graphs. (Received August 26, 2016)