1117-52-479   **Megan Owen*** (`megan.owen@lehman.cuny.edu`), **Anna Lubiw** and **Daniela Maftuleac**.
Convex hulls in tree space.

The space of metric phylogenetic trees, as constructed by Billera, Holmes, and Vogtmann, is a polyhedral cone complex. This space is non-positively curved, so the geodesic (shortest path) between two trees is unique. Based on this property, a number of statistical methods in Euclidean space can be analogously defined for tree space. One such concept is that of convex hulls, which can be used for computing both quartiles of data and data points of maximal depth. We give an algorithm for computing convex hulls in the space of trees with 5 leaves. This algorithm extends to any 2D CAT(0) polyhedral complex with a single-vertex. (Received January 19, 2016)