

1125-62-1915      **Megan Owen\*** ([megan.owen@lehman.cuny.edu](mailto:megan.owen@lehman.cuny.edu)). *Means and a Central Limit Theorem in tree space.*

The space of metric phylogenetic trees introduced by Billera, Holmes, and Vogtmann (2001) is a polyhedral cone complex. It is also non-positively curved or CAT(0), so there is a unique shortest path (geodesic) between any two trees and a well-defined notion of a mean tree for a given set of trees. I will discuss some properties of the mean tree and give a partial Central Limit Theorem for when the mean is in a top-dimensional cone or on a co-dimension one boundary of one. The later result is joint work with Dennis Barden and Huiling Le. (Received September 19, 2016)