1116-00-1536 **Keertana Anandraj*** (kanandra@wellesley.edu) and **Laura Brunner**. *Phylogenetic Supertree Reconstruction Using Weighted Quartets.* Preliminary report.

Phylogenetic trees, a tool often used by biologists, are branching diagrams representing the relationships among organisms and their ancestors. Combining multiple phylogenetic trees into one larger supertree has been a challenging, yet intriguing, problem. Quartet based amalgamation methods, which are often used to reconstruct supertrees, create large supertrees in an efficient manner. We have attempted to improve this method by increasing its accuracy. To do this, we have constructed a weighting system which will allow quartets to be considered differently based on the confidence or reliability of the relationships among the organisms. Our improvements involve devising a new weighting system for the quartets developed from gene-species trees as well as branch lengths. (Received September 20, 2015)