

In 1987, Mikhail Gromov described an algorithm for constructing an approximating tree for an arbitrary finite metric space, with additive error proportional to a property of the space called the Gromov hyperbolicity. We discuss an improved version of this algorithm when the metric space is a graph, which runs in $O(n^2)$ time given the adjacency matrix of the graph. Joint work with Dr. Eduardo Martinez-Pedroza.