

1116-55-1970 **Safia Chettih*** (safia@uoregon.edu). *Topology of Configurations on Trees*.

The homology and cohomology groups of configurations of n unordered points are known on a number of simple graphs, but elude a general combinatorial description. By considering instead a discretized model for configuration spaces of graphs, we can apply a discretized version of Morse theory that simplifies calculations of homotopy type. I will describe how recent results may be extended to ordered configurations and give explicit presentations for homology and cohomology classes as well as pairings for ordered and unordered configurations of two and three points on trees, and talk about the geometric and combinatorial structures interrelating configurations on graphs. (Received September 21, 2015)