

1135-05-2409 **Michael A. Jackson*** (majackson@gcc.edu). *Open Questions in the Forest of Polytope Number Sequences*. Preliminary report.

Polytope number sequences are sequences of positive integers arising from the geometry of polytopes in any dimension. This talk will begin by introducing the topic of polytope numbers and giving a sampling of results my students have found over the past seven years. The remainder of the talk will discuss open questions about polytope numbers including ones related to Fermat's Last Theorem and Waring's problem. We will also discuss how moving into the forest of polytope numbers continues to show new paths to follow. (Received September 26, 2017)