## 1171-05-118 Zhanar Berikkyzy, Alex Schulte, Elizabeth Sprangel\* (sprangel@iastate.edu), Nathan Warnberg, Shanise Walker and Michael Young. Anti-van der Waerden numbers on trees.

In this talk, arithmetic progressions on the integers and the integers modulo n are extended to graphs. This allows for the definition of the anti-van der Waerden number of a graph, which is the least positive integer r such that every exact r-coloring of a graph contains a rainbow k-term arithmetic progression. We will discuss bounds on the anti-van der Waerden number on trees regarding 3-term arithmetic progressions. (Received August 09, 2021)