

1153-05-19

Zhanar Berikkyzy, Alex Schulte, Elizabeth Sprangel* (sprangel@iastate.edu), **Shanise Walker, Nathan Warnberg** 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 July 08, 2019)