Anti-van der Waerden numbers on trees
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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.

Keywords: anti-van der Waerden number, rainbow, $k$-term arithmetic progression, Ramsey number