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Hunter Rehm (hunter.rehm@uvm.edu), **Alex Schulte*** (aschulte@iastate.edu), **Nathan Warnberg** (nwarnberg@uwlax.edu) and **Michael Young** (myoung@iastate.edu). *The anti-van der Waerden number of graphs.*

The anti-van der Waerden number is the smallest r such that every exact r -coloring of G contains a rainbow k -term arithmetic progression. In this presentation the anti-van der Waerden number of a graph is investigated. In particular, bounds are found for the anti-van der Waerden number of a graph using radius and diameter conditions. Moreover, it is shown that the cartesian product of two graphs has an anti-van der Waerden number of at most 4. (Received September 17, 2018)