1147-05-291 **Ryan R. Martin***, Department of Mathematics, 411 Morrill Road, 396 Carver Hall, Ames, IA 50011. *Recent progress on the edit distance in graphs.* Preliminary report.

The edit distance between two graphs on the same labeled vertex set is defined to be the size of the symmetric difference of the edge sets, divided by $\binom{n}{\lfloor n/2 \rfloor}$. The edit distance function of a hereditary property $\mathcal{H}$ is a function of $p \in [0,1]$ that measures, in the limit, the maximum normalized edit distance between a graph of density p and $\mathcal{H}$. It is also, again in the limit, the edit distance of the Erdős-Rényi random graph $G(n,p)$ from $\mathcal{H}$.

In this talk, we discuss some connections between this problem and algebraically-defined graphs. We will also present results for new hereditary properties. (Received January 16, 2019)