1113-05-120 **Zhanar Berikkyzy** and **Ryan R Martin*** (rymartin@iastate.edu), Department of Mathematics, Iowa State University, 396 Carver Hall, Ames, IA 50011, and **Chelsea Peck**. *The edit distance of powers of cycles.* 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 address the edit distance function for $\mathrm{forb}(H)$, where $H = C_h^t$, the t^{th} power of the cycle of length h. For $h \geq 2t(t+1)+1$ and h not divisible by $t+1$, we determine the function for all values of p. For $h \geq 2t(t+1)+1$ and h divisible by $t+1$, the function is obtained for all but small values of p. We also obtain some results for smaller values of h. (Received August 16, 2015)