1116-03-2264 **Matthew Jura** and **Oscar Levin*** (oscar.levin@unco.edu), School of Mathematical Sciences, University of Northern Colorado, Greeley, CO 80639, and **Tyler Markkanen**. *Graphs between computable and highly computable.*

There are features of countable graphs whose behavior, in terms of computability theory, depends on the complexity of the neighborhood relation. Specifically, the behavior changes when we move from computable graphs to highly computable graphs. It is natural, therefore, to ask what happens between these two extremes. An A-computable graph is a computable, locally finite graph for which A can compute the neighbors of a given vertex. Gasarch and Lee first investigated these graphs and proved that for any noncomputable c.e. set A, the A-computable graphs behave just like computable graphs when it comes to chromatic number. In this talk we consider a similar result for Euler paths. We then take up the question of what happens in the case when A is merely noncomputable Δ^0_2. We show the theorems which hold of noncomputable c.e. sets do not extend to all $A \in \Delta^0_2$ and classify those sets for which they do. (Received September 22, 2015)