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**Benjamin Braun** and **Julianne Vega\*** (jvega30@kennesaw.edu). *Hajos-type Constructions and Neighborhood Complexes.*

Any graph  $G$  with chromatic number  $k$  can be constructed by iteratively performing certain graph operations on a sequence of graphs starting with  $K_k$ , resulting in a variety of Hajos-type constructions for  $G$ . Finding such a construction for a given graph or family of graphs is a challenging task. In this talk, I will present our results which imply that for a graph  $G$  with a highly-connected neighborhood complex, the end behavior of the construction is quite restricted. Time permitting I will share results of computational experiments. (Received September 13, 2020)