1164-05-121 **Michael Guyer*** (mdg0036@auburn.edu) and **Jessica McDonald**. *On Clique Immersions in Line Graphs.*

In this talk we will discuss the immersion relation, a containment relation on graphs that is similar but incomparable to the well-known minor relation. We will explore the relationship between coloring and such containment relations. In particular, we prove that if $L(G)$ immerses K_t then $L(mG)$ immerses K_{mt}, where mG is the graph obtained from G by replacing each edge in G with a parallel edge of multiplicity m. This implies that when G is a simple graph, $L(mG)$ satisfies a conjecture of Abu-Khzam and Langston. We also show that when G is a line graph, G has a K_t-immersion iff G has a K_t-minor whenever $t \leq 4$, but this equivalence fails in both directions when $t \geq 5$. (Received January 15, 2021)