1150-05-417 **Patrick Bennett**, **Sean English*** (sean.english@ryerson.ca) and **Maria Talanda-Fisher**.
Weighted Turán Numbers and Maximum Crossing Numbers.

Turán's theorem, which classifies the graphs which have the most number of edges while avoiding a clique of a fixed size, was one of the first major results in extremal graph theory. In this talk, we will consider a generalization of Turáns theorem in which each edge is assigned a weight, and we try to maximize the total weight of the graph avoiding a large clique. We will also explore an application of weighted Turán to the problem of maximizing the total number of crossing edges in a straight-line drawing of trees. (Received July 14, 2019)