## Seminar Notes

March 8, 2021

## 1 Definitions

**Tournament** - is a directed graph such that  $\forall v, u \in V(T)$  only one of the two edges (v, u), (u, v) is in E(T)

**Hyperedge** - is an edge with 2 or more vertices (e.g.  $\{v_1, v_2, ..., v_n\}$ )

**Hypergraph** - is a generalization of a graph where  $\forall e \in E$  is a hyperedge

**k-uniform hypergraph** - is a hypergraph where  $\forall e \in E, |e| = k$  (a graph is 2-uniform hypergraph)