Combinatorics Seminar

Wednesday March 11th, 2015
3:00 pm-3:50 pm in Hume 201

Fractional chromatic number of random Subgraphs

Hehui Wu

University of Mississippi

ABSTRACT For a graph G let G_p denote the subgraph of G, in which each edge of G is in G_p with probability p independently at random. Boris Bukh asked whether there is a constant $c > 0$ so that $E(\chi(G_{1/2})) > c\chi(G)/\log(\chi(G))$. A fractional chromatic number of graph G, denoted by $\chi_f(G)$, is the minimum total weight of independent sets , such that for each vertex x, the independent sets contains x has total weight at least 1. We prove the analogous fractional chromatic number version of Boris Bukh's conjecture: there is a constant $c > 0$, so that $E(\chi_f(G_{1/2})) > c\chi_f(G)/\log(\chi_f(G))$.