
OGUZ KURT, The Ohio State University

The rule trees and the cubic root bound on the chromatic index

The famous Goldberg-Seymour Conjecture states that the linearity gap between the chromatic index χ' and the fractional chromatic index χ'^* is less than 1 if $\chi' > \Delta + 1$. Here, we show that this statement holds if $\chi' > \Delta + \sqrt[3]{\Delta/2}$. While the starting point of our proof is Tashkinov trees and VKT-trees by Chen et. al., we will use a more general tree definition called the rule trees in our proof.