DAVID WAGNER, University of Waterloo

Results on chromatic polynomials inspired by a correlation inequality of Farr

In 1993, Graham Farr published a correlation inequality for chromatic polynomials of graphs, and made a number of much stronger conjectures. Inspired by this, we found a direct combinatorial proof of this inequality and began investigating a two-variable power series encoding the relevant information about a graph. I will report on various results, conjectures, and counterexamples regarding this series. This is joint work with Ghislain McKay.