

Cross-ratios and perfect matchings

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Given a bipartite graph G (subject to a constraint), the "cross-ratio degree" of G is a non-negative integer invariant of G , defined via a simple counting problem in algebraic geometry. I'll discuss several natural contexts in which cross-ratio degrees arise. I will then present a perhaps-surprising upper bound on cross-ratio degrees in terms of counting perfect matchings. I'll also outline the tropical side of the story.