CATHY KRILOFF, Idaho State University

Spectra of Cayley graphs of complex reflection groups

The distance matrix records the length of the shortest path between each pair of vertices in a graph and a graph with integral distance spectrum will be called distance integral. Renteln proved that Cayley graphs of finite real reflection groups with respect to all reflections are distance integral and provided combinatorial formulas for the distance spectrum of the infinite families of such graphs. We extend this result by proving that Cayley graphs of finite complex reflection groups with connection set consisting of all reflections are distance integral. We also provide a combinatorial formula for the distance spectrum for a family of monomial complex reflection groups. This is joint work with Briana Foster-Greenwood.