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Vertex-faithful regular polyhedra

A regular abstract polyhedron is vertex-faithful if each symmetry is uniquely determined by its action on the vertices. When the number of vertices has only a few factors, it is possible to classify all regular vertex-faithful polyhedra with that many vertices. In this talk, I will present a classification of all regular polyhedra with a prime number of vertices (vertex-faithful or not), and I will describe some results so far on vertex-faithful regular polyhedra where the number of vertices is twice a prime or a prime squared. Joint work with Mark Mixer.