
SHONDA GOSSELIN, University of Winnipeg
Paley uniform hypergraphs

The well known Paley graphs are constructed on finite fields. These graphs are vertex-transitive, self-complementary, and have many other interesting properties. We introduce the Paley graph construction and look at some examples, and then use Paley's algebraic technique to construct some k -uniform hypergraphs with properties analogous to those of the Paley graphs, such as vertex-transitivity, self-complementarity, and more generally, q -complementarity.