

University of Delaware
Discrete Mathematics Seminar

An Explicit Construction of Ramanujan Graphs

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Tuesday, October 4, 2011
Ewing Hall 336 3.45-4.45pm

We will begin by discussing expanders, a class of sparse and highly connected graphs. Ramanujan graphs make the best expanders, but relatively few examples are known. We will describe the construction of Lubotzky, Phillips and Sarnak, which used algebraic and number theoretic techniques to produce an infinite family of $(p + 1)$ -regular Ramanujan graphs for any prime p .