Combinatorics Seminar

Distinct edge weights on graphs

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Abstract: A Sidon set is a subset of an abelian group which has the property that all of its pairwise sums are distinct. Sidon sets are well-studied objects in combinatorial number theory and have applications in extremal graph theory and finite geometry. Working in the group of integers with multiplication, Erdos showed that one cannot find a Sidon set that is asymptotically denser than the primes. In this talk, we show that one can obtain the same result with a much weaker restriction than requiring a Sidon set. This complements work of Bollobas and Pikhurko from 2004. We also discuss an open problem that they posed, with some ideas for how to attack it. This is joint work with Jacques Verstraete.

Tuesday, November 4, 2014, 1:00 pm
Mathematics and Science Center: E408

Mathematics and Computer Science
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