

Euclidean Ramsey Theory

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A finite set X in some Euclidean space \mathbb{R}^n is called *Ramsey* if for any k there is a d such that whenever \mathbb{R}^d is k -coloured it contains a monochromatic set congruent to X . A long standing open problem is to characterise the Ramsey sets.

In this talk I will discuss the background to this problem, a new conjecture, and some group theoretic questions this new conjecture raises.