

Geometry Seminar
Tuesday, Feb 15, 2010
Room 201 WWH at 6:00 P.M.

Coin-weightings and different directions of lines

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Starting with a version of coin-weighting problems proposed by ApSimon (1984) we discuss directions of lines among lattice points. Consider a set V of k vectors on the plane with nonnegative integer coordinates. Let $S(V)$ be the set of the $2^k - 1$ non-empty subset sums. We are looking for the smallest $N = N(k)$ such that V is a subset of $\{1, 2, 3, \dots, N\} \times \{1, 2, \dots, N\}$ and the slopes of the members of S are all distinct.

For more information please visit the seminar website at:
http://www.math.nyu.edu/seminars/geometry_seminar.html.