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Pablo Soberón* (p.soberonbravo@northeastern.edu), 463 Lake Hall, 360 Huntington Avenue, Boston, MA 02115. *A probabilistic approach to Tverberg-type results.*

Tverberg's theorem is a classic gem in combinatorial geometry. We show how the probabilistic method can be applied to obtain robust versions of this result. In particular, given positive integers r, d, t ; we study the number of points needed in R^d to guarantee the existence of a partition of them into r parts such that, even after any t points are removed, the convex hulls of what is left in each part have non-empty intersection. (Received July 11, 2016)