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Soberón. *About an Erdős-Grünbaum conjecture concerning piercing of non-bounded convex sets.*

In this paper, we study the number of compact sets needed in an infinite family of convex sets with a local intersection structure to imply a bound on its piercing number, answering a conjecture of Erdős and Grünbaum. Namely, if in an infinite family of convex sets in R^d sets we know that out of every p there are q which are intersecting, we determine if having some compact sets implies a bound on the number of points needed to intersect the whole family. We also study variations of this problem. (Received September 14, 2014)