## Sampling in Geometric Set Systems

Homework Extra

Show that for any finite set of $n$ points $P$ in the plane, no matter how we choose an $N \subset P$ of size $k$, there is always a disk that is disjoint from $N$ but contains at least $n / 2 k$ points from $P$.
http://web.cs.elte.hu/coge/samplingminicourse19.html

