

962-52-910

Istvan Talata* (talata@math.lsa.umich.edu), Department of Mathematics, University of Michigan, Ann Arbor, MI 48109-1109. *An example for a convex body whose translative kissing number is odd.*

The translative kissing number $H(K)$ of a d -dimensional convex body K is defined as the maximum number of mutually nonoverlapping translates of K that can be arranged so that all touch K . In 1961, Grünbaum proved that in the planar case $H(K)$ is equal to either 6 or 8. Based on this result, he conjectured that translative kissing numbers are always even numbers in any dimensions. In this talk we disprove Grünbaum's conjecture by giving an example of a 3-dimensional convex body whose translative kissing number is 17. Based on this example, we can construct a d -dimensional convex body for any $d \geq 3$ so that it has an odd translative kissing number. (Received September 28, 2000)