

Decomposing multiple coverings

Géza Tóth, MTA Rényi Institute of Mathematics

A planar set is cover-decomposable if a sufficiently thick covering of the plane by its translates can always be decomposed into two coverings. More than 30 years ago János Pach proposed the problem of determining cover-decomposable sets. He proved that centrally symmetric convex polygons are cover-decomposable. The problem is still not solved completely. We review the ideas of his proof, and many interesting improvements, generalizations, and related developments.