

1020-52-182

Robert Connelly* (connelly@math.cornell.edu), Department of Mathematics, Malott Hall, Cornell University, Ithaca, NY 14853, and **Erik D. Demaine, Martin L. Demaine, Sándor P. Fekete, Stefan Langerman, Joseph S. B. Mitchell, Ares Ribó and Günter Rote.**

Adornments and expanding flowers.

Consider a finite configuration of points $p = (p_1, p_2, \dots, p_n)$ in the plane, and another corresponding configuration $q = (q_1, q_2, \dots, q_n)$ that is an expansion, which means that $|p_i - p_j| \leq |q_i - q_j|$ for all $1 \leq i < j \leq n$. What can we attach to the configuration and still be able to control how they intersect? One possibility is to attach disks and carry them along with the expansion. From a solution by K. Bezdek and R. Connelly to a problem proposed by Kneser and Poulsen, it is clear that the area of the union of the disks does not decrease. One can also attach some very unusually shaped sets, called *slender adornments* which are unions of intersections of pairs of disks centered at the end points of the line segments. Such sets are a special case of sets called flowers by Gordon and Meyer, and they enjoy the Kneser-Poulsen property as well. (Received August 27, 2006)