
STEVEN SENGER, Missouri State University
Chains and other multiple point configurations

Our primary motivation is the classical Erdős unit distance problem, which asks for how often a unit distance can occur in a large finite point set in the plane. We generalize this to consider chains, or $(k + 1)$ -tuples of points with the k distances between consecutive points prescribed. We also discuss related results with more distances prescribed between points, and related problems in geometric measure theory.