

Distinct Distances and Rigidity

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In the talk I will tell about certain problems in the field of extremal combinatorial geometry and their connection to rigidity-type questions. I will focus on an instance of Erdos' distinct distances problem (in which the points are forced to lie on a constant-degree algebraic curve) and will connect it to the following question: Characterize irreducible algebraic curves γ , with the property that every generic embedding of the vertices of K_3 (a triangle) in γ is flexible. (We will answer the latter question.)