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Algebraic Sunflowers

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Abstract. We study sunflowers within the context of finitely generated substructures of ultrahomogeneous structures. In particular, we look at bounds on how large a set system is needed to guarantee the existence of sunflowers of a given size. We show that if we fix the size of the sunflower, the function which takes the size of the substructures in our set system and outputs the size of a set system needed to guarantee a sunflower of the desired size can grow arbitrarily slowly.

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