Abstract: A constellation is a higher dimensional analogue of an arithmetic progression, namely something of the shape \( \{x, x + te_1, \ldots, x + te_d\} \in \mathbb{Z}^d \), where \( t \in \mathbb{Z} \) and \( x, e_1, \ldots, e_d \in \mathbb{Z}^d \). We discuss finding such patterns lying inside a relatively dense subsets of \( P^d \), where \( P \) denotes the set of primes. While the case for general sets of \( \{e_j\} \) remains open, if the \( i^{th} \) coordinate of the \( e_j \) is distinct in \( j \) for each \( i \), the existence of infinitely many constellations of this shape is shown. This is joint work with Ákos Magyar.