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Let  $A$  be an algebra over a field  $F$  of characteristic zero and  $Id(A)$  its T-ideal of identities. The space of multilinear polynomials in  $n$  fixed variables modulo  $Id(A)$  is a representation of the symmetric group  $S_n$  and its degree is called the  $n$ th codimension of  $A$ . As soon as  $A$  is associative and satisfies a non-trivial identity, its sequence of codimensions is exponentially bounded and, following a conjecture of Amitsur regarding its exponential growth, Regev made a conjecture about the precise asymptotics of such sequence. I will talk about the results around this conjecture also in the case of non associative algebras.