

1018-13-267

**Giulio Caviglia\*** ([caviglia@math.berkeley.edu](mailto:caviglia@math.berkeley.edu)), University of California, Berkeley, 970 Evans Hall #3840, Berkeley, CA 94720-3840. *Some progress on the Lex-Plus-Power conjecture.*

We study Hilbert functions of homogeneous ideals in  $K[x_1, \dots, x_n]$  containing a regular sequence of given degrees  $d_1, \dots, d_r$ . We give a complete characterization of such Hilbert functions when  $d_{i+1} \geq d_1 + \dots + d_i - i - 1$ , for all  $i \in \{1, \dots, r - 1\}$ . (Received March 08, 2006)