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Susan M. Cooper* (susan.cooper@umanitoba.ca), Department of Mathematics, University of Manitoba, 464 Machray Hall, Winnipeg, MB R3T 2N2, Canada. *Minimum Distance Functions*. Preliminary report.

Motivated by the generalized Hamming weight of a linear code, we consider the generalized minimum distance function (gmd function) of a graded ideal in a polynomial ring. In general, this function is very difficult to compute. We will use commutative algebra to investigate the asymptotic behaviour of the gmd function and techniques to compute it. This is joint work with A. Seceleanu, Ş. Tohăneanu, M. Vaz Pinto and R. Villarreal. (Received August 31, 2018)