

1145-13-2314

Eliseo Sarmiento* (esarmiento@ipn.mx), Secretaría de Investigación y Posgrado, 07738 Mexico City, Mexico, Mexico, and **Eduardo Camps, Rafael Villarreal** and **Manuel Gonzalez**. *The second generalized hamming weight of some evaluation codes arising from a projective torus.*

Let K be a finite field and let X be a subset of a projective space, over the field K , which is parameterized by the square-free monomials.

It is shown that $I(X)$ is a complete intersection if and only if X is a projective torus. In this case we determine a formula for the second generalized Hamming weight of evaluation codes arising from a projective torus. This allows us to compute the corresponding weights of the codes parameterized by the edges of a complete bipartite graph. We determine some of the generalized Hamming weights of non-degenerate evaluation codes arising from a complete intersection in terms of the minimum distance, the degree and the regularity. (Received September 25, 2018)