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A Class of Finite Three-Dimensional Metric Spaces

Let K be the cubic extension of the finite field $F = GF(q)$, where Q is any prime power. Being a vector space, K is also an affine 3-space. The mapping from K to F known as the Norm imposes a metric on K. The unit surface C in K is the set of all elements of K with norm 1. Using the symmetries of the unit surface, we cover C with a map of type $3, 6$ (triangular faces, six at each vertex). It then follows that C is a torus. The covering map has considerable symmetry, but is not regular.