

1077-11-1104 **Phong Le*** (ple@niagara.edu), Niagara University, Mathematics Department, Lewiston, NY
14109. *On the Dimension of Algebraic-Geometric Trace Codes.*

Algebraic-Geometric (AG) codes arise from the evaluation of the elements of an \mathbb{F}_{q^m} -vector space of functions on a set of \mathbb{F}_{q^m} rational points on a curve X . We shall consider trace codes associated to algebraic-geometric codes. Conditions will be derived where one can determine the exact dimension of such codes. This is a generalization of work done by Van Der Vlugt. (Received September 16, 2011)