Exploring Bounds

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1 Introduction

There exists a considerable interest today in determining the maximum possible number of codewords for a code with certain parameters. We use the notation $A_q(n, d)$ and $B_q(n, d)$, defined as the maximum of number of codewords in a code over $\mathbb{F}_q$ of length n and minimum distance d for an arbitrary (linear on non-linear) code and linear code, respectively. In lecture, we have considered upper bounds—Sphere Packing, Singleton, and Greismer—as well as lower bounds—Gilbert and Varshamov—on these values. The purpose of this paper is to consider other well-known bounds in the literature.

This paper is broken up into x sections.

Krawtouck polynomials does this work cool