

Outline of Math 422

1 Introduction

- A Error Detection and Correction
- B Balanced Block Designs
- C The ISBN code

2 Linear Codes

- A Encoding and Decoding
- B Syndrome Decoding

3 Hamming Codes

4 Golay Codes

5 Cyclic Codes

6 BCH Codes

7 Cryptographic Codes

- A Symmetric-Key Cryptography
- B Public-Key Cryptography

A Finite Fields