

1116-20-943

Paul E Becker* (peb8@psu.edu). *Automorphism groups of extremal codes.*

A linear binary code is a vector space consisting of binary vectors with a specified length. A code is error-correcting if the individual vectors are sufficiently far apart to allow correction of occasional substitution errors. Construction of codes with specified properties is an active area of research. In this talk, we will discuss a well-known error-correcting code, and explain how partial knowledge of its automorphism group is sufficient to construct the code. We will then discuss a sequence of papers by numerous authors which greatly restrict the automorphism group of a particular putative code. The existence of this code has been an open question for 40 years. (Received September 15, 2015)