## 1108-20-210 Paul Becker\* (peb8@psu.edu), Sheridan Houghten, Jennifer Ulrich and Martin Derka. A natural two-generator construction of the sporadic Mathieu group $M_{24}$ .

The sporadic group  $M_{24}$  is known to be the full automorphism group of the extended binary Golay code. We discuss two very simple constructions for the Golay code; each admits a natural automorphism. We then correlate the two constructions, producing two permutations which are sufficient to generate  $M_{24}$ . (Received January 13, 2015)