

Meeting: 1001, Evanston, Illinois, SS 5A, Special Session on Codes and Applications

1001-11-404 **Iwan Duursma*** (duursma@math.uiuc.edu), Department of Mathematics, University of Illinois, 1409 W. Green St., Urbana, IL 61801. *MacWilliams duality for cosets over rings*. Preliminary report.

Wood showed that MacWilliams type identities exist for codes over Frobenius rings. We extend the identities to cosets of such codes. Separately, we give criteria for codes over non-Frobenius rings that guarantee that the code has a well-defined dual and that a MacWilliams type relation exists between the code and its dual. (Received August 31, 2004)