

1096-05-1966 **Ryan K Therkelsen*** (rtherkelsen@bellarmine.edu). *A Multiset Generalization of t -Designs*. Preliminary report.

The connections between coding theory and design theory have been well studied. Codes over finite fields are typically associated with (traditional) designs, while a newer notion of multiset design – called k -coloured constant composition designs – has been shown to have analogous connections to linear codes over certain finite rings. In the traditional theory, t -designs are a major object of study, however for k -coloured constant composition designs a description analogous to t -designs has yet to be established. In this talk, I will propose such a description, outlining the similarities to traditional t -designs as well as some difficulties that arise when working in the multiset setting. (Received September 16, 2013)