

Meeting: 1005, Newark, Delaware, SS 5A, Special Session on Designs, Codes, and Geometries

1005-05-22 **J. D. Key*** (keyj@clemsun.edu), Department of Mathematical Sciences, Clemson University, Clemson, SC 29634, **T. P. McDonough** (tpd@aber.ac.uk), Institute of Math. and Physical Sciences, University of Wales, Aberystwyth, SY23 3BZ Aberystwyth, Wales, and **V. C. Mavron** (vcm@aber.ac.uk), Institute of Math. and Physical Sciences, University of Wales, Aberystwyth, SY23 3BZ Aberystwyth, Wales. *Information sets for generalized Reed-Muller codes and some bases of minimum-weight vectors.*

A simple way to construct information sets for the generalized Reed-Muller codes is described, and these information sets are then used to obtain explicit bases of minimum-weight vectors for the codes of the designs of points and hyperplanes over prime fields. (Received January 11, 2005)