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**Sung Y. Song\*** (sysong@iastate.edu), Department of Mathematics, Iowa State University, Ames, IA 50011-2061, and **Grant Bowling, Kavi Duvvoori** and **Robert Lazar**. *A family of  $q$ -analog partially balanced  $t$ -designs over  $GF(q)$* . Preliminary report.

A  $q$ -analog partially balanced  $t$ -design over the finite field  $GF(q)$ , denoted a PB  $t$ - $(v, k, \{\lambda_1, \lambda_2, \dots, \lambda_m\}; q)$ -design, is a collection of  $k$ -dimensional subspaces of a  $v$ -dimensional vector space over  $GF(q)$ , such that each  $t$ -dimensional subspace is contained in  $\lambda_i$   $k$ -subspaces in the collection for some  $i \in \{1, 2, \dots, m\}$ . By using the field reduction maps, we give a construction of a family of non-trivial PB  $t$ - $(v, k, \{\lambda_1, \lambda_2, \dots, \lambda_m\}; q)$ -designs with  $v$  composite for small  $t$  and  $m$ . (Received August 03, 2015)