

1116-05-2516

Peter J. Dukes, Alan C.H. Ling and Amanda Malloch* (anjam@uvic.ca).

Thickly-Resolvable Block Designs.

A σ -parallel class in a design with point set V and block set \mathcal{B} is a set \mathcal{A} such that $\mathcal{A} \subseteq \mathcal{B}$ and every point of V belongs to exactly σ of the blocks in \mathcal{A} . A balanced incomplete block design (V, \mathcal{B}) is said to be σ -resolvable if \mathcal{B} admits a partition into σ -parallel classes. We show that the divisibility conditions required for the existence of a σ -resolvable BIBD(v, k, λ) are in fact sufficient whenever v is large enough. (Received September 22, 2015)