

**Chai, Feng-Shun; Stufken, John**

**Trend-free block designs for higher order trends.** (English) Zbl 0943.05012  
*Util. Math.* 56, 65-78 (1999).

Necessary conditions for the existence of  $p$ -trend-free equireplicated binary block designs are derived for  $2 \leq p \leq k - 1$ . The conditions are sufficient for complete block designs. A BIBD with  $v \leq 10$ ,  $b \leq 100$ ,  $3 \leq k \leq 8$  and satisfying the necessary conditions, is shown to be  $p$ -trend-free.

Reviewer: [K.Sinha \(Ranchi\)](#)

**MSC:**

[05B05](#) Combinatorial aspects of block designs

**Keywords:**

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