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Level-wise Screening via Locating Arrays

A (d, t) -locating array (LA) is a covering array of strength t with the property that any set of d number of t -tuples can be distinguished from any other such set by appearing in a distinct set of rows. The number of rows in LA grows logarithmically in the number of columns, making it a cost-efficient design. We propose a screening method based on LA to identify important factors that significantly impact the response and validate our method on well-studied data sets.

This talk is based on joint work with F. Zhang, C.J. Colbourn, J. Stufken, and V.R. Syrotiuk.