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*Covering arrays and generalizations*

In this introductory talk, we survey results on covering arrays and generalizations. A covering array of strength  $t$ ,  $k$  factors, each with  $v$  levels, and size  $n$  is an  $n \times k$  array with entries on  $\{1, 2, \dots, v\}$  such that any  $t$ -set of columns contains each of the  $v^t$  tuples in some row. Generalizations include: mixed levels, variable strength, forbidden configurations, error-locating arrays, etc. We will spend more time on topics not covered in other talks.