
SEBASTIAN RAAPHORST, University of Ottawa

Variable Strength Covering Arrays

Variable strength covering arrays (VCA) have their combinations of parameters to cover dictated by the facets of an abstract simplicial complex. We examine a density-based greedy algorithm to find arbitrary VCAs that guarantees that the array size is logarithmically bounded by a function of the number of facets in the simplicial complex when the maximum facet size is bounded by a fixed constant. We also investigate several properties of VCA.