

Abstract

**$S(2, 5, 45)$ designs constructed from orbit
matrices using a modified genetic algorithm**

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Genetic algorithms (GA) are search and optimization heuristic population-based methods which are inspired by the natural evolution process. In this talk, we will present a method of constructing incidence matrices of block designs combining the method of construction with orbit matrices and a modified genetic algorithm. With this method we managed to find some new non-isomorphic $S(2,5,45)$ designs.

Joint work with Dean Crnković.