Abstract

Defining sets of Combinatorial Designs: An overview

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A defining set of a combinatorial design is a subcollection of its blocks which has a unique completion to a design with the given parameters. In 2000, It was suggested to use the defining sets of combinatorial designs for secret sharing algorithms. In this talk, the defining set problem will be defined for combinatorial designs. Then an overview of the attempts to solve this problem will be given. The algorithms suggested and theoretical approaches will be explained. The emphasis will be on defining sets of full designs and their connections with the defining sets other t-designs.