

Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

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Structural properties of Hadamard designs.

This talk will focus on structural properties of Hadamard designs, i.e. symmetric designs with parameters $2 - (4n - 1, 2n - 1, n - 1)$. The properties of interest are good blocks and good points, and how they interact. Elucidating these properties yields information about a classical construction of Hadamard designs. One application is: given a Hadamard design of order n , we derive an exponential lower bound for the number of non-isomorphic Hadamard designs of order $2n$. Also, given a finite group G , we construct an infinite family of Hadamard designs with full automorphism group isomorphic to G .

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