

**Abstract**

**Transitive designs constructed from groups**

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Let  $G$  be a finite permutation group acting transitively on the sets  $\Omega_1$  and  $\Omega_2$ . We describe a construction of a 1-design determined by the action of  $G$ .  $G$  acts transitively on the set of points and the set of blocks of a constructed design. We apply this method to construct transitive designs from some finite simple groups. Some of the constructed 1-designs are also 2-designs. One can use this method to construct other combinatorial structures admitting transitive automorphism group, *e.g.* strongly regular graphs. Further, we discuss a construction of infinite designs from groups.