On some transitive combinatorial structures constructed from the unitary group $U(3,3)$

(Talk)

Andrea Švob

Department of Mathematics, University of Rijeka

asvob@math.uniri.hr

(joint work with Dean Crnković, Department of Mathematics, University of Rijeka and Vedrana Mikulić Crnković, Department of Mathematics, University of Rijeka)

We describe a construction method of transitive $1-$designs from a finite group. We use this method to construct $2-$designs and strongly regular graphs on conjugacy classes of maximal and second maximal subgroups under the action of the unitary group $U(3,3)$, or its maximal subgroups.

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