

GENERALIZED DIRECTED ASSOCIATION SCHEME AND ITS MULTIPLICATIVE FORM

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Abstract

In this paper a new generalization called Generalized Directed Association Scheme (GDAS) of Association Scheme is described. Our generalization is obtained by weakening some conditions of Higman's Coherent Configuration. We have defined algebra and multiplicative form of a GDAS and proved their uniqueness. Several examples of GDAS are constructed and their multiplicative forms are obtained.

Key Words : *Association scheme, Multiplicative form, Coherent configuration.*

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