

HYPERGROUPS ARISING FROM CHARACTERS OF A COMPACT GROUP AND ITS SUBGROUP

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ABSTRACT.

The purpose of the present paper is to investigate a hypergroup arising from irreducible characters of a compact group G and a closed subgroup G_0 of G with index $[G : G_0] < +\infty$. The convolution of this hypergroup is introduced by inducing irreducible representations of G_0 to G and by restricting irreducible representations of G to G_0 . The method of proof relies on character formulae of induced representations of compact groups and of Frobenius' reciprocity theorem.

Key words and phrases. Induced representation, character of representation, hypergroup.