

# Functional equations on infinite hypergroup joins

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The aim of this talk is to discuss some functional equations on the so-called hypergroup joins. It is known that if  $G$  is a group of infinite order and  $\mathbb{C}$  is the field of complex numbers, then there exists a non-zero additive function defined on  $G$ , i.e. a function  $a: G \rightarrow \mathbb{C}$  such that  $a(x + y) = a(x) + a(y)$  for all  $x, y$  in  $G$ . It occurs that in the case of hypergroups there exists an infinite hypergroup such that the only additive function defined on it is zero. In this talk we are going to investigate the hypergroup of infinite order and some functional equations defined on it.