

BIGROUP AND FUZZY BIGROUP

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The notion of bigroup was first introduced by Maggu. We in this note define the notion fuzzy bigroup: Let $\{G = G_1 \cup G_2, +, \bullet\}$ be a bigroup. Then $\mu: G \rightarrow G$ is said to be a fuzzy sub-bigroup of G if there exists two fuzzy subsets μ_1 (of G_1) and μ_2 (of G_2) such that

- (i) $(\mu_1, +)$ is a fuzzy subgroup of $(G_1, +)$
- (ii) (μ_2, \bullet) is a fuzzy subgroup of (G_2, \bullet)
- (iii) $\mu_1 \cup \mu_2 = \mu$.

Let $(\mu_1, +)$ be a fuzzy subgroup of a group $(G_1, +)$ and (μ_2, \bullet) is a fuzzy subgroup of a group (G_2, \bullet) . Then $(\mu_1 \cup \mu_2, +, \bullet)$ is a fuzzy subgroup of $(G_1 \cup G_2, +, \bullet)$ we also define fuzzy sub-bigroup of a group and obtain several interesting results about them.

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