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Title: A generalization of Gajda's equation on commutative topological groups

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In the present paper we deal with the following generalization of the sine-cosine equation

$$\int [f_1(x + y - t) + f_2(x - y + t)] d\mu(t) = g(x)h(y)$$

for complex valued functions f_1 , f_2 , g and h defined on a commutative topological group G , where μ is a complex measure defined on G .

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