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Integral Kannappan-Sine subtraction law on semigroups

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- (1) Semigroup
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- (3) Sine subtraction law.

Abstract

Let S be a semigroup, μ a discrete measure on S and $\sigma: S \rightarrow S$ is an involutive automorphism. We determine the complex-valued solutions of the integral Kannappan-Sine subtraction law:

$$\int_S f(x\sigma(y)t) d\mu(t) = f(x)g(y) - f(y)g(x), \quad x, y \in S.$$

The continuous solutions on topological semigroups are also given.

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