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Section:

8. Analysis

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Perfectness of conelike $*$-semigroups in Q^k
Let S be an abelian $*$-semigroup in Q^k. We give a sufficient condition for every positive definite function on S to have a unique representing measure on the dual semigroup of S (i. e. S is perfect). To characterize perfectness for any abelian $*$-semigroup is a challenging, but not yet generally solved problem. In this talk, we characterize the structure of involutions on an abelian $*$-semigroup which is a subset of Q^k, and show that all conelike $*$-semigroups in Q^k are perfect.