A RADON–NIKODYM TYPE THEOREM FOR
\( \alpha \)-COMPLETELY POSITIVE MAPS ON GROUPS

MARIA JOIŢA

Abstract. We show that an operator valued \( \alpha \)-completely positive map on a group \( G \) is given by a unitary representation of \( G \) on a Krein space which satisfies certain conditions. Moreover, two such of unitary representations, which are unitarily equivalent, define the same \( \alpha \)-completely positive map. Also we introduce a pre-order relation on the collection of \( \alpha \)-completely positive maps on a group and we characterize this relation in terms of the unitary representation associated to each map.

Keywords and phrases: \( \alpha \)-completely positive map on groups, Radon-Nikodym theorem, unitary representation on Krein spaces.

REFERENCES