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Quaternion-valued positive definite functions on locally compact Abelian groups and nuclear spaces

Abstract

In this talk we introduce and study quaternion-valued positive definite functions on locally compact Abelian groups, real countably Hilbertian nuclear spaces and on the space of countably infinite tuples of real numbers endowed with the Tychonoff topology. In particular, we prove a quaternionic version of the Bochner-Minlos theorem. We will see that in all these various settings the integral representation is with respect to a quaternion-valued measure which has certain symmetry properties.

This talk is based on joint work with D. Alpay, F. Colombo and I. Sabadini.

Talk time: 7/22/2016 3:00PM— 7/22/2016 3:20PM

Talk location: Cupples I Room 113

Special Session: Finite and infinite dimensional moment problems. Organized by M. Infusino, S. Kuhlmann, and T. Kuna.