Journal of Lie Theory 33 (2023) 133–148

J.-L. Clerc
Université de Lorraine, Institut E. Cartan, Nancy, France
jean-louis.clerc@univ-lorraine.fr

Unitarizable Vector-Valued Holomorphic Discrete Series and the Laplace Transform : an Example

For T_Ω a Hermitian symmetric tube-type domain, a family $(\pi_\mu)_{\mu\in\mathbb{C}}$ of holomorphic vector-valued representations is studied. The corresponding Wallach set is determined. The main tool is a realization of the representations as weighted L^2-spaces on the cone Ω through the Laplace transform.

Keywords: Tube-type domains, Euclidean Jordan algebras, holomorphic discrete series, weighted Bergman spaces, Laplace transform, Wallach set.

MSC: 22E46, 32M15, 44A10.