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

For $T_\Omega$ 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 $\Omega$ 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.