

A K-THEORETIC APPROACH TO THE MINIMAL K -TYPES OF REPRESENTATIONS OF REAL REDUCTIVE GROUPS

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Let G be a real reductive group and K a maximal compact subgroup, say $G=SL(n,\mathbb{R})$ and $K=SO(n)$. A famous theorem of Vogan in unitary representation theory states that there is a one-to-one correspondence between irreducible representations of K and irreducible tempered representations of G with real infinitesimal character, given by the minimal K -type. We will show how a K -theoretic version of this theorem can be proven by studying the deformation of G to its Cartan motion group thanks to the Connes-Kasparov conjecture.