

Constructing minimal representations of Lie supergroups

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For a large class of Lie groups, minimal representations are in a sense its smallest infinite-dimensional unitary representations. I describe an approach to generalise minimal representations to the super setting for Lie superalgebras obtained from Jordan superalgebras using the TKK construction. This approach was used successfully to construct a Fock model, a Schrödinger model and intertwining Segal-Bargmann transform for the orthosymplectic Lie supergroup $OSp(p, q|2n)$, the exceptional Lie supergroup $D(2, 1; \alpha)$ and the Metaplectic Lie supergroup $Mp(2m|2n, 2n)$.