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Finite-dimensional representation theory of the queer Lie superalgebra q(n)

Abstract:

We will first describe some classical theory of the queer Lie superalgebras q(n), such as Clifford modules, (generic) character formula for the irreducible representations, and classification of the blocks of finite-dimensional representations. Then we will focus our attention to q(3) and provide an explicit description of the Ext-quivers of the blocks. A proof of a "virtual" BGG reciprocity for q(n), which then gives the radical filtrations of indecomposable projective objects for q(3), will be provided.