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Shifra Reif* (shifra.reif@biu.ac.il). *Grothendieck Rings of Strange Lie Superalgebras.*

The Grothendieck ring of the general linear Lie algebra $\mathfrak{gl}(n)$ is isomorphic to the ring of symmetric Laurent polynomials $\mathbb{C}[x_1^{\pm 1}, \dots, x_n^{\pm 1}]$. The strange series are two generalizations of $\mathfrak{gl}(n)$ called the periplectic and queer Lie superalgebras.

In the periplectic case, we describe the Grothendieck ring using the ring of supercharacters. We prove that it consists of all symmetric Laurent polynomials for which the evaluation $x_1 = x_2^{-1} = t$ is independent of t . In the queer case, we describe the Grothendieck ring using the ring of characters. We prove that it consists of all symmetric Laurent polynomials for which the evaluation $x_1 = -x_2 = t$ is independent of t .

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