

1154-81-2711

Luan Bezerra* (luanpere@iupui.edu) and **Evgeny Mukhin**. *Quantum toroidal superalgebras associated with $\mathfrak{gl}_{m|n}$.*

We introduce the quantum toroidal superalgebras $\mathcal{E}_{m|n}(q_1, q_2, q_3)$, which are affinizations of the quantum affine algebras $U_q \widehat{\mathfrak{gl}}_{m|n}$. We give an evaluation map from $\mathcal{E}_{m|n}(q_1, q_2, q_3)$ to the quantum affine algebra $U_q \widehat{\mathfrak{gl}}_{m|n}$ with $q^2 = q_2$ at level $c = q_3^{(m-n)/2}$, and a bosonic realization of level one $\mathcal{E}_{m|n}(q_1, q_2, q_3)$ -modules. (Received September 17, 2019)