

Vertex operators and deformed Macdonald-Ruijsenaars operators

Martin Hallnas

We explain how Sergeev and Veselov's deformed Macdonald-Ruijsenaars operators naturally arise in the context of a known free field realization of ordinary Macdonald-Ruijsenaars operators. In particular, this provides a new derivation of higher order integrals and formulas for their joint eigenfunctions, the so-called super Macdonald polynomials. Based on joint ongoing work w/ E. Langmann and J. Shiraishi.