

# Quantum immanants for the queer Lie superalgebra

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## **Abstract.**

We apply the recently introduced idempotents for the Sergeev superalgebra to construct quantum immanants for the queer Lie superalgebra  $q\mathbb{N}$  as central elements of its universal enveloping algebra. We prove a universal Capelli identity for  $q\mathbb{N}$  and use it to calculate the images of the quantum immanants under the action of  $q\mathbb{N}$  in differential operators. We show that the Harish-Chandra images of the quantum immanants coincide with the factorial Schur  $Q$ -polynomials. This is joint talk with Alexander Molev.