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Harmonic analysis on some super vector spaces

Okounkov and Olshanskii defined shifted analogues of Schur functions and proved, among other things, that they describe the spectrum of certain differential operators (Capelli operators). In a purely formal manner, Okounkov also defined a shifted version of Schur's Q -functions. Subsequently, these were studied by Ivanov who exhibited many beautiful properties. In the talk we explain how to interpret Okounkov's shifted Schur- Q -functions in terms of differential operators on certain super vector spaces. In particular, we obtain a binomial type theorem for shifted Q -functions. This is joint work with Michael Weingart.