A construction of the affine VW supercategory
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A construction of the affine VW supercategory arose from our study of the representation theory of periplectic Lie superalgebras \( p(n) \). Letting \( V \) to be a superspace with \( \mathbb{Z}/2\mathbb{Z} \)-grading and \( M \) to be a \( p(n) \)-module, we construct a super version of the degenerate BMW algebra in the process of examining higher Schur-Weyl duality for the tensor product of \( M \) with finitely-many copies of \( V \). I will discuss affine VW superalgebras and their center, and the affine VW supercategory and its connection to Brauer supercategory. While giving examples throughout my talk with plenty of diagrams, I will discuss how computer-aided research advances this area of representation theory. This is joint with M. Balagovic, Z. Daugherty, I. Entova-Aizenbud, I. Halacheva, J. Hennig, G. Letzter, E. Norton, V. Serganova, and C. Stroppel.