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Dwight Anderson Williams II* (dwightawilliams@mavs.uta.edu) and **Dimitar Grantcharov**. *Basis of an infinite-dimensional tensor product representation of $\mathfrak{osp}(1|2n)$* . Preliminary report.

We consider the complex orthosymplectic Lie superalgebra $\mathfrak{osp}(1|2n)$ acting on the super vector space $\mathbb{C}[x_1, x_2, \dots, x_n] \otimes_{\mathbb{C}} \mathbb{C}^{1|2n}$, where $\mathfrak{osp}(1|2n)$ acts via differential operators on polynomials $\mathbb{C}[x_1, x_2, \dots, x_n]$ (Weyl representation). The resulting tensor product representation decomposes into the direct sum of two simple infinite-dimensional submodules. We provide an explicit basis for each of these modules by introducing certain differential operators. (Received September 14, 2019)