1164-17-153 **Dene Lepine*** (dlepine@uwaterloo.ca). *The abstract Capelli problem and Capelli eigenvalue problem for the Lie superalgebra* $\mathfrak{osp}(1|2n)$.

In this presentation, we define the Capelli operators for the superalgebra of $\mathfrak{gosp}(1|2n)$-invariant differential operators on the space of superpolynomials $\mathcal{P}(\mathbb{C}^{1|2n})$. We then present results that show the Capelli operators lie in the image of the centre of the enveloping algebra of $\mathfrak{gosp}(1|2n)$. Using these results, we give explicit formulas for the eigenvalues of these operators on irreducible summands of $\mathcal{P}(\mathbb{C}^{1|2n})$. These results thereby solve the abstract Capelli problem and Capelli eigenvalue problem for $\mathfrak{osp}(1|2n)$. (Received January 17, 2021)