1155-05-251 **Brendon Rhoades*** (bprhoades@math.ucsd.edu) and **Andrew Timothy Wilson** (andwils2@pdx.edu). *Vandermondes, superspace, and spanning line configurations.*

Given two positive integers $k \leq n$, let $X_{n,k}$ be the moduli space of n-tuples of lines in $\mathbb{C}^k$ whose span equals $\mathbb{C}^k$. The presenter and Pawlowski introduced $X_{n,k}$ as an extension of the complete flag variety $\mathcal{F}\ell_n$ to the Haglund-Remmel-Wilson *Delta Conjecture*. The space $X_{n,k}$ is not compact; its cohomology ring does not exhibit Poincaré Duality in general. We introduce an extension of the Vandermonde determinant to superspace and use this extension to build multigraded S_n-module extending the cohomology of $X_{n,k}$ which exhibit a 'bigraded' version of Poincaré Duality and (conjecturally) give a representation-theoretic model for the Delta Conjecture. Joint with Andy Wilson. (Received January 15, 2020)