1158-52-368   **Nathan Thom*** (`nathanthom@csufresno.edu`) and **Oscar Vega** (`ovega@csufresno.edu`). *The Veldkamp Space of $W(q)$.* Preliminary report.

Given a partial linear space, S, the Veldkamp space of S, denoted $mathcalV(S)$, is defined using the geometric hyperplanes of S. In this talk, we will examine the forms the geometric hyperplanes of S can take when S is a finite generalized quadrangle and the cardinality of their pairwise intersections in order to understand how $mathcalV(S)$ behaves. In general, $mathcalV(S)$ does not possess desirable geometric attributes, so we focus on families of generalized quadrangles that impart some nice properties to their Veldkamp spaces. In particular, we consider the case when S is the generalized quadrangle $W(q)$, for q odd, and the case of its dual, $Q(4, q)$. Using a combinatorial approach, we will show that the Veldkamp space of $W(q)$ is isomorphic to $PG(3, q)$. (Received March 03, 2020)