

1120-47-224

**Travis B Russell\*** ([trussell18@huskers.unl.edu](mailto:trussell18@huskers.unl.edu)). *Characterizations of ordered self-adjoint operator spaces.*

Abstract characterizations have played an important role in the study of operator spaces (subspaces of  $B(H)$ ) and operator systems (unital self-adjoint subspaces of  $B(H)$ ), as they allow us to study these objects without directly considering their actions on a particular Hilbert space. While abstract characterizations for operator systems and operator spaces have been well known for several decades, corresponding characterizations for self-adjoint subspaces of  $B(H)$  which may not possess a unit have not been considered until very recently.

In this talk, we will consider a new abstract characterization for self-adjoint subspaces of  $B(H)$  which may be non-unital. This characterization accounts for both the sequence of norms and the sequence of partial orderings inherited by such subspaces, generalizing the work of Werner. Time permitting, we will examine some applications, including extension problems and quotients. (Received February 22, 2016)