1173-05-180 **Mahir Bilen Can**, **Hayden Houser** and **Corey Wolfe*** (cwolfe@tulane.edu). *The Borel Submonoid of a Symplectic Monoid.*

This talk will discuss the combinatorial properties of the complex symplectic monoid MSp_n. In particular, we will show the Bruhat-Chevalley-Renner order on the algebraic monoid of $n \times n$ matrices M_n completely determines the the Bruhat-Chevalley-Renner order on MSp_n. We will then focus on the Borel submonoid of MSp_n to introduce a new kind of type B set partitions. Finally, we introduce "folding" and "unfolding" operators to determine the count of the Borel submonoid. (Received September 20, 2021)