Reese Johnston*, rwjohnston@math.wisc.edu. *Computability in $2^{\omega_1}$.

Cantor space has been an object of significant study in computability theory; of particular interest are the properties of $\Pi^0_1$ classes, or "computably closed" sets. It seems natural to ask whether this wealth of results can be transferred to other topological spaces that are in some sense similar. One possible direction for this study is the theory of Polish spaces; we take another direction, using admissible recursion theory to study $2^{\omega_1}$, a space that is much larger but conceptually similar. (Received March 20, 2017)