1116-VU-2142   **Will Murray**, Department of Mathematics and Statistics, 1250 Bellflower Blvd, California State University, Long Beach, Long Beach, CA 90840, **Joshua Sack*** (`joshua.sack@csulb.edu`), Department of Mathematics and Statistics, 1250 Bellflower Blvd, California State University, Long Beach, Long Beach, CA 90840, and **Saleem Watson**, Department of Mathematics and Statistics, 1250 Bellflower Blvd, California State University, Long Beach, Long Beach, CA 90840. *P-spaces and intermediate rings of continuous functions.*

A completely regular topological space is a P-space if every zero-set is open. A ring of real-valued continuous functions on X is an intermediate ring if it contains all the bounded functions. This talk examines the relationships between P-spaces and intermediate rings. There are a number of characterizations of P-spaces involving properties of the ring $C(X)$ of all continuous functions on X. We show that some of these properties still characterize P-spaces when we consider the corresponding property of an intermediate ring $A(X)$ strictly contained in $C(X)$, and other properties characterize $C(X)$ among intermediate rings when X is a P-space. For example, the property $M_A^p = O_A^p$ for all $x \in X$ characterizes X as a P-space, while the property that $M_A^p = O_A^p$ for all $p \in \beta X$ characterizes $C(X)$ among intermediate rings when X is a P-space. (Received September 21, 2015)