1014-06-812 **Suzanne L Larson*** (slarson@lmu.edu), 1 LMU Drive, Suite 2700, Los Angeles, CA 90045.
*Rings of Continuous Functions on Spaces of Finite Rank and the SV Property.*

Let $C(X)$ denote the ring of continuous real-valued functions defined on the compact space $X$. A point $x \in X$ is said to have rank $n$ if, in $C(X)$, there are $n$ minimal prime $\ell$-ideals contained in the maximal $\ell$-ideal $M_x = \{f \in C(X) : f(x) = 0\}$. The space $X$ has finite rank if there is an $n$ such that every point $x \in X$ has rank at most $n$. We call $X$ an SV space if $C(X)/P$ is a valuation domain for each minimal prime ideal $P$ of $C(X)$. Every compact SV space has finite rank and it is unknown if a compact space of finite rank is necessarily SV.

For a bounded continuous function $h$ defined on a cozeroset $U$ of $X$, we say there is an *$h$-rift* at $z \in X$ if there is no extension of $h$ in $C(U \cup \{z\})$. I will show that the set of points with $h$-rift is a subset of the set of points of rank greater than 1 and that whether or not a compact space of finite rank is SV depends on a characteristic of the closure of the set of points with $h$-rift for each $h$. If $X$ has finite rank and the set of points with $h$-rift is an F-space for each $h$, then $X$ is an SV space. Also, if every $x \in X$ has rank at most 2, then $X$ is an SV space if and only if for each $h$, the set of points with $h$-rift is an F-space. (Received September 24, 2005)