1120-15-69 **Xavier Martinez-Rivera*** (xaviermr@iastate.edu). *Classification of families of pr- and epr-sequences.*

The *principal minor assignment problem* asks the following question: can we find an $n \times n$ real symmetric matrix having prescribed principal minors. An attempt to simplify this problem led to the introduction of two sequences for a symmetric or (complex Hermitian matrix). The *principal rank characteristic sequence* of an $n \times n$ symmetric matrix B is $r_0]r_1 \cdots r_n$, where, for $k = 1, 2, \ldots, n$, $r_k \in \{0, 1\}$ and $r_k = 1$ if and only if B has a nonzero principal minor of order k, while $r_0 = 1$ if and only if B has a 0 on its main diagonal (otherwise $r_0 = 0$). The *enhanced principal rank characteristic sequence* of an $n \times n$ symmetric matrix B is $\ell_1\ell_2 \cdots \ell_n$, where ℓ_k is `A` (respectively, `N`) if all (respectively, none) the principal minors of order k are nonzero; if some but not all are nonzero, then $\ell_k =$ `S`. Results regarding the attainability of certain classes of sequences are discussed, as well as restrictions for some subsequences to appear in an attainable sequence. (Received February 09, 2016)