1125-15-2169 **Marina Arav***, Department of Mathematics and Statistics, Georgia State University, 30 Pryor Street, Atlanta, GA 30303, and **Frank Hall**, **Hein van der Holst** and **Zongshan Li**. *Signed graphs with maximum nullity at most two.*

A signed graph is a pair (G, ϕ), where $G = (V, E)$ is a graph (in which parallel edges are permitted, but loops are not) and $\phi : E \to \{-, +\}$. By $S(G, \phi)$, we denote the set of all symmetric $n \times n$ matrices $A = [a_{i,j}]$ such that if $a_{i,j} < 0$, then i and j are connected by at least one $-$ edge, if $a_{i,j} > 0$, then i and j are connected by at least one $+$ edge, and if $a_{i,j} = 0$, then i and j are nonadjacent or i and j are connected by a $+$ and by a $-$ edge. The parameters $M(G, \phi)$ and $\xi(G, \phi)$ of a signed graph (G, ϕ) are the largest nullity of any matrix $A \in S(G, \phi)$ and the largest nullity of any matrix $A \in S(G, \phi)$ that has the Strong Arnold Property, respectively. In this talk, we discuss the characterizations of the classes of signed graphs (G, ϕ) with $M(G, \phi) \leq 1$, of the class of signed graphs (G, ϕ) with $\xi(G, \phi) \leq 1$, of the class of 2-connected signed graphs (G, ϕ) with $M(G, \phi) \leq 2$, and of the class of 2-connected signed graphs (G, ϕ) with $\xi(G, \phi) \leq 2$. (Received September 19, 2016)