1146-15-359   **Michael Cavers**, **Jonathan Fischer** and **Kevin Vander Meulen***, Department of Mathematics, Redeemer University College, Ancaster, ON L9K 1J4, Canada. *On Spectral Properties of Sign Patterns.* Preliminary report.

A sign pattern is a matrix whose entries are in $\{0, +, -\}$. A matrix realization A of a sign pattern S is a real matrix for which the sign of each entry of A matches the corresponding entry in S. A sign pattern S is spectrally arbitrary if for each multiset M of complex numbers closed under conjugation, there is a realization A with spectrum M. If a pattern is spectrally arbitrary then it is also potentially nilpotent, inertially arbitrary, and refined inertially arbitrary. We will review some of the developments for these sign pattern classes and address some open problems. (Received January 26, 2019)