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**Colin M Garnett\*** ([colin.garnett@bhsu.edu](mailto:colin.garnett@bhsu.edu)), 1200 University St., Unit 9003, Spearfish, SD 57799-9003. *Combinatorial structures that preclude SAP*. Preliminary report.

It is well known that a zero-nonzero pattern cannot be spectrally arbitrary if its digraph doesn't have at least two loops and at least one two cycle. This talk focuses on several other combinatorial conditions on the digraph that preclude it from being spectrally arbitrary. In particular we are sometimes able to reduce the number of unknown entries to be below the threshold of  $2n - 1$ . We are also able to describe some structures that allow us to conclude that one of the coefficients in the characteristic polynomial is in the ring generated by the other coefficients. (Received February 10, 2016)