

1125-15-1620 **Louis Deaett** and **Colin M Garnett*** (colin.garnett@bhsu.edu). *Combinatorial conditions that preclude SAPpiness.*

It is well known that a complex zero-nonzero pattern cannot be spectrally arbitrary if its digraph doesn't have at least two loops and at least one two cycle, or at least three loops. 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 $2n - 1$. Other techniques will be discussed, including finding that one coefficient is a multiple of another. (Received September 18, 2016)