1166-94-110Emily McMillon* (emily.mcmillon@huskers.unl.edu), Allison Beemer and Christine
Kelley. Graph-Based Codes for Streaming Applications.

Low-density parity-check (LDPC) codes are a class of linear codes defined by sparse parity-check matrices and have corresponding sparse bipartite graph representations. They have been shown to be capacity-achieving over many channels using low complexity graph-based iterative decoders. Spatially-coupled LDPC (SC-LDPC) codes are a special class of codes whose repetitive graph structure makes them amenable to window decoding, in which the nodes are decoded in groups from one end to the other. This type of decoding is useful for applications such as data streaming. In this talk we show how to make the subgraph seen by the window decoder have desirable distance properties and compare these to the properties of the overall code. (Received February 15, 2021)