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**Jessalyn Bolkema\*** ([jessalyn.bolkema@huskers.unl.edu](mailto:jessalyn.bolkema@huskers.unl.edu)). *Results on polar codes via configurations on multitrees.*

While Arikan's polar codes have been celebrated for their capacity-achieving performance since first presented in 2008, the questions of optimal finite-length design and decoding remain open. In this talk, we explore a graph-theoretic construction of computation multitrees applicable to belief propagation decoding. We describe configurations on these graphs that provide insight into the structure and decoding properties of polar codes. (Received September 26, 2017)