

# Hamiltonian edge-connectivity of 2-tree-generated networks

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In this talk we consider a class of Cayley graphs that are generated by certain 3-cycles on the alternating group  $A_n$ . These graphs are generalizations of the alternating group graph  $AG_n$ . We look at the case when the 3-cycles form a “tree-like structure”, and analyze the Hamiltonian edge-connectivity of such graphs. We prove that even with  $2n - 7$  edges deleted, the remaining graph is Hamiltonian connected, i.e. there is a Hamiltonian path between every pair of vertices. This is joint work with Eddie Cheng.