Mohamad Abdallah* (mkabdall@oakland.edu) and Eddie Cheng. Fault-Tolerant Hamiltonian Connectivity of 2-Tree Generated Networks.

In this paper we consider a class of Cayley graphs that are generated by a 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 2-tree, and analyze the fault-tolerant Hamiltonian connectivity of such graphs. We prove that these graphs are $(2n - 7)$-fault-tolerant Hamiltonian connected. (Received January 15, 2015)