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Kathryn Beck* (beckk@dickinson.edu), **Lisa Cenek** (lcenek21@amherst.edu) and **Brittany Gelb** (begelb@muhlenberg.edu). *Chorded Pancyclic Properties in Claw-Free Graphs.*

A graph G is (doubly) chorded pancyclic if G contains a (doubly) chorded cycle of every possible length m for $4 \leq m \leq |V(G)|$. In 2018, Cream, Gould, and Larsen completely characterized the pairs of forbidden subgraphs that guarantee chorded pancyclicity in 2-connected graphs. In our work, we show that the same pairs also imply doubly chorded pancyclicity. We further characterize conditions for the stronger property of doubly chorded (k, m) -pancyclicity where every set of k vertices in G is contained in a doubly chorded m -cycle for all $4 \leq m \leq |V(G)|$. In particular, we examine forbidden pairs and degree sum conditions that guarantee this recently defined cycle property. This work was completed as a part of the 2019 Lafayette College REU and supported by the NSF under grant number 1560222. (Received August 22, 2019)