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Leanne Elizabeth Merrill* (merrill@wou.edu). *Periodic Margolis Self Maps at $p = 2$* . Preliminary report.

The Periodicity theorem tells us that any finite spectrum supports a v_n -map for some n . We are interested in finding finite 2-local spectra that both support a v_2 -map with a low power of v_2 and have few cells. Following the process outlined by Palmieri and Sadofsky, we study a related class of self-maps, known as u_2 -maps, between stably finite spectra. We construct examples of spectra that might be expected to support u_2^1 -maps, and then we use Margolis homology and homological algebra computations to show that they do not support u_2^1 -maps. We also show that one example does not support a u_2^2 -map. The nonexistence of u_2 -maps on these spectra eliminates certain examples from consideration by this technique. (Received February 05, 2018)