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Carolyn Chun, Dillon Mayhew and **James Oxley*** (oxley@math.lsu.edu), Mathematics Department, Louisiana State University, Baton Rouge, LA 70803-4918. *Closer Towards a Splitter Theorem for Internally 4-connected Binary Matroids*. Preliminary report.

Two powerful inductive tools for dealing with 3-connected matroids are Tutte's Wheels-and-Whirls Theorem and Seymour's Splitter Theorem. For several years, we have been seeking analogues of these theorems for internally 4-connected binary matroids. In 2011, we proved an analogue of the first theorem by showing that, with some easily described exceptions, it is always possible to remove one, two, or three elements from an internally 4-connected binary matroid to recover another internally 4-connected matroid. An analogue of the Splitter Theorem seeks not only to retain internal 4-connectivity but also to maintain an isomorphic copy of some internally 4-connected minor N of M . This talk will be a progress report on our work towards such a theorem. (Received November 29, 2012)