1037-05-112 **Rhiannon Hall*** (rhiannon.hall@brunel.ac.uk), Mathematics Department, Brunel University, Uxbridge, UB8 3PH, England. *Chain-type and splitter-type theorems for cocircuits and hyperplanes in 3-connected matroids.*

This is based on joint work with Dillon Mayhew.

There has been much interest for many years in the ability to remove elements from 3-connected matroids and remain (almost) 3-connected. Theorems of this nature are generally known as "chain-type" theorems. Theorems in which you remove elements while remaining (almost) 3-connected and retaining a specific minor, are known as "splitter-type" theorems. I will discuss a chain-type theorem where we wish to contract elements from a specific hyperplane, and I will discuss a splitter-type theorem where we wish to contract elements from a specific cocircuit.

Key words: chain theorem, splitter theorem, 3-connected matroid, cocircuit, hyperplane. (Received January 28, 2008)