

1080-05-23

**Carolyn Chun\*** (chchchun@gmail.com), MSOR, PO Box 600, Wellington, 6140, New Zealand,  
and **Dillon Mayhew**, **Geoff Whittle** and **Stefan van Zwam**. *Fragility in matroids*.

For a matroid  $M$  with a minor  $N$ , we say that  $M$  is  $N$ -fragile if, for every element  $e$  in the ground set of  $M$ , either  $M/e$  or  $M \setminus e$  does not contain  $N$  as a minor. Understanding the structure of  $N$ -fragile matroids is necessary for thinking about Rota's conjecture. In this talk, we present a characterization of the binary, Fano-fragile matroids. (Received November 20, 2011)