1099-13-334 **Neil Epstein*** (nepstei2@gmu.edu), 4400 University Drive, MS: 3F2, Fairfax, VA 22030, and **Jay Shapiro**. *Strong Krull primes and flat modules.*

Several long-established theorems describe the intricate relationship between flatness and associated primes over commutative Noetherian rings. However, associated primes are known to act badly over non-Noetherian rings, so one needs a suitable replacement. We show that when it comes to flatness, the behavior of strong Krull primes over a general commutative ring most closely resembles that of associated primes over a Noetherian ring. For instance, a theorem of Epstein and Yao characterizing flat modules over Noetherian rings in terms of associated primes has a good analogue by replacing associated primes by strong Krull primes. Also, we get a partial generalization of a classical theorem regarding flat base change and associated primes in Noetherian rings, again by use of strong Krull primes. That is, we can show one containment in general and equality in many special cases. One application is of interest over any Noetherian ring of prime characteristic. If there is time, some limiting counterexamples will be given. (Received February 11, 2014)