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**Kevin A Broughan\*** ([kab@waikato.ac.nz](mailto:kab@waikato.ac.nz)), Department of Mathematics, University of Waikato, Hamilton, 3216. *Flat Primes and Thin Primes*.

Flat primes and thin primes are primes where the shift by  $\pm 1$  has a restricted form, namely a power of 2 or that times a square free number or odd prime respectively. They arise in the study of multi-perfect numbers. Here we show that the flat primes have asymptotic density relative to that of the full set of primes given by twice Artin's constant, that more than 50% of the primes are both lower and upper flat, and that the series of reciprocals of thin primes converges. (Received January 06, 2009)