

1056-11-1244 **C S Franze*** (craig.s.franze@gmail.com). *Sifting Limits for Selberg's $\Lambda^2\Lambda^-$ Sieve*. Preliminary report.

Selberg outlined the details of his $\Lambda^2\Lambda^-$ sieve in his collected papers. He asserted that for sufficiently large sieve dimensions κ , the sifting limit is $2\kappa + \frac{19}{36} + o(1)$. In contrast, the higher dimensional sieve developed by Diamond, Halberstam, and Richert has a sifting limit that is asymptotically 2.44κ . While it is clear that Selberg's sieve is superior for sufficiently large κ , it is unknown as to how these sieves compare in small to moderately sized dimensions. To this end, I present some computations of the sifting limits for the $\Lambda^2\Lambda^-$ sieve. The computations suggest that the asymptotics for the sifting limits of the $\Lambda^2\Lambda^-$ sieve are achieved quite quickly. (Received September 21, 2009)