1052-11-22 **C S Franze***, Department of Mathematics, Central Michigan University, Pearce Hall 214, Mount Pleasant, MI 48859. *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 July 06, 2009)