

# On the large sieve with sparse sets of moduli

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**Abstract.** Extending a method of D. Wolke [10], we establish a general result on the large sieve with sparse sets  $\mathcal{S}$  of moduli which are in a sense well-distributed in arithmetic progressions. We then use this result together with Fourier techniques to obtain large sieve bounds for the case when  $\mathcal{S}$  consists of squares. These bounds improve a recent result by L. Zhao [11].

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