

Abstract Submitted  
for the MAR16 Meeting of  
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**A quantum Algorithm for the Moebius Function** PETER LOVE,  
Tufts Univ — We give an efficient quantum algorithm for the Moebius function from  
the natural numbers to  $-1,0,1$ . The cost of the algorithm is asymptotically quadratic  
in  $\log n$  and does not require the computation of the prime factorization of  $n$  as an  
intermediate step.

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