1077-00-503 **Fidele F Ngwane*** (ngwanef@mailbox.sc.edu), 807 Hampton St., Walterboro, SC 29488. *Integral Closures of number fields.*

The qth-power algorithm is a recent and efficient method of computing the integral closure of a ring in its field of fractions. Previously, the qth-power algorithm has been used to compute integral closures over finite fields. In this paper we use the qth-power algorithm to compute integral closures over number fields. We also compare our output and timings with the ones obtained using MAGMA built-in IntegralClosure function. (Received September 06, 2011)