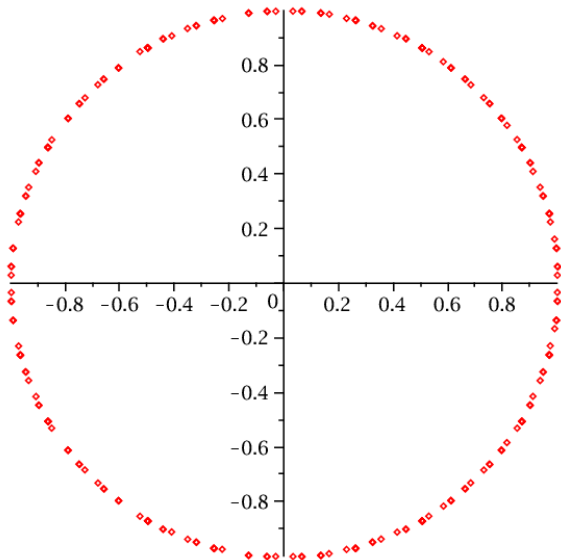


Recounting the rationals

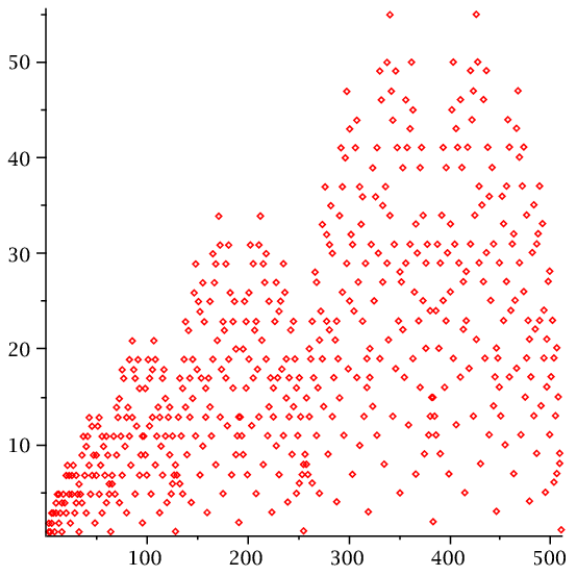
Michael Lugo

University of Pennsylvania

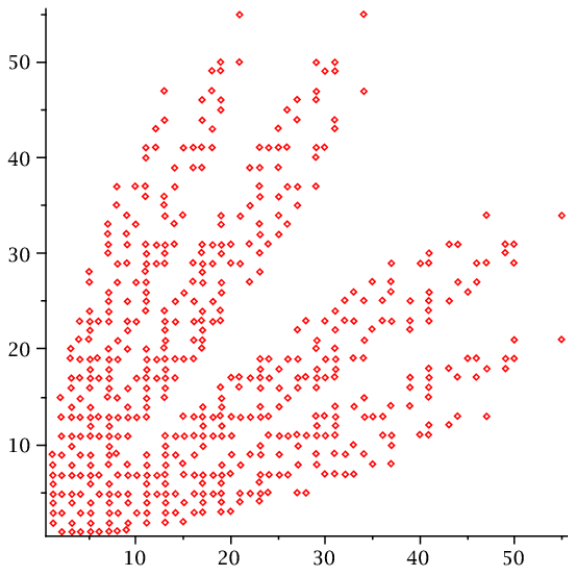
December 5, 2008



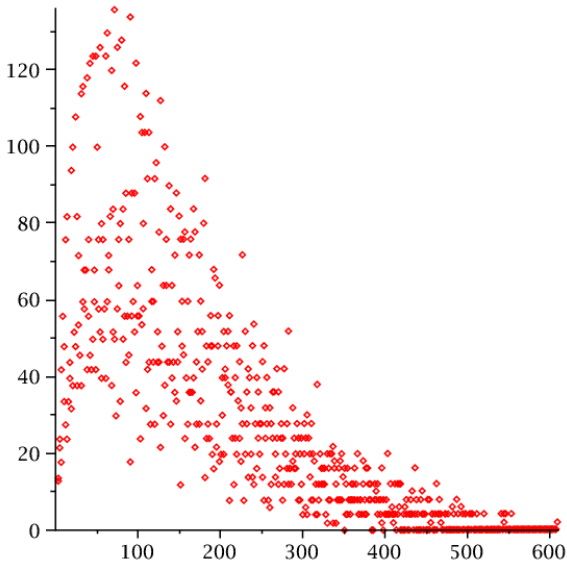
Roots of $\prod_{i=0}^6 (1 + z^{2^i} + z^{2^{i+1}})$



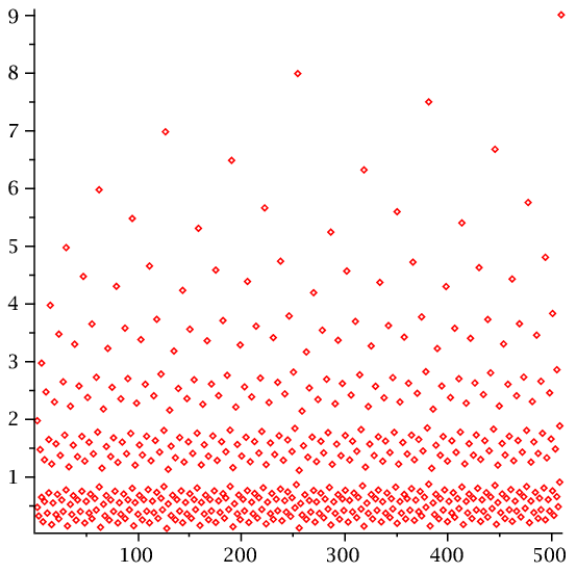
$b(n)$ for $n = 1, 2, 3, \dots, 511 = 2^9 - 1$



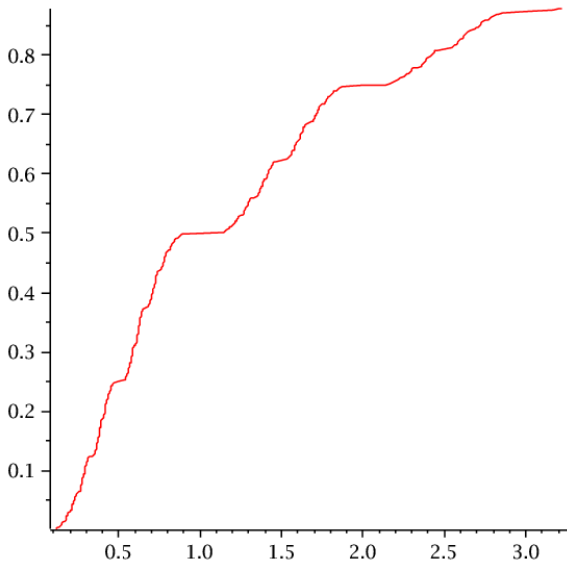
$(b(n), b(n+1))$ for $n = 1, 2, 3, \dots, 510 = 2^9 - 2$



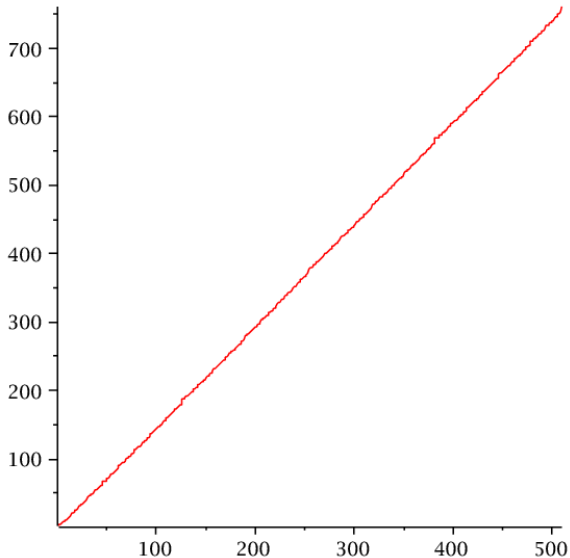
Number of $k < 2^{14} - 1$ for which $b(k) = n$, for $n = 1, \dots, 610$



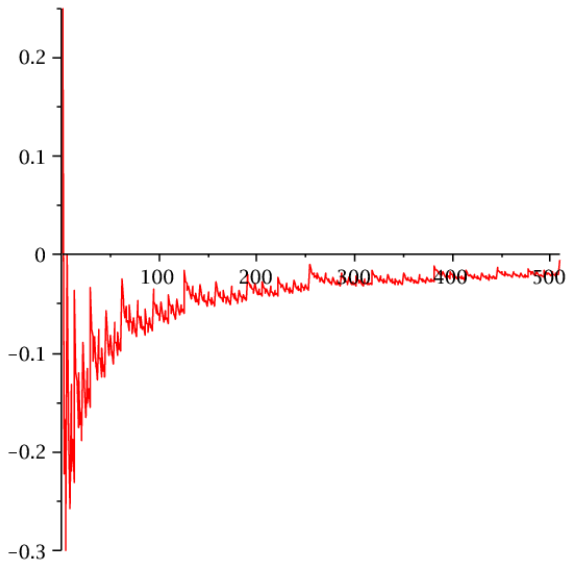
The first 511 rationals.



Empirical cdf of the rationals in the CW enumeration (truncated).



Partial sums of the sequence of rationals.



The average of the first n rationals, minus $3/2$.