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**Zebediah Engberg\*** ([zeb@dartmouth.edu](mailto:zeb@dartmouth.edu)). *On the reciprocal sum of primes dividing Mersenne numbers.*

Let  $f(n) = \sum_{p|2^n-1} 1/p$ . Erdős proved that  $f(n) \leq \log \log \log n + C$  for some constant  $C$ . Apart from the exact value of  $C$ , it is easy to show that this result is best possible. Although it would be more interesting to understand the maximal order of  $\sum_{p|2^n-1} 1$ , the function  $f(n)$  is more tractable, albeit still difficult. In this talk, we consider Erdős's question on the exact value of the constant  $C$ , as well as functions which generalize  $f(n)$ . (Received September 11, 2013)