

Figure 1: Fits for  $\tau$  with various number of bursts. For each simulation at some  $(p, N)$  we simulate 10000 clusters, except at  $N = 100000$  where we only simulate 1000 clusters.

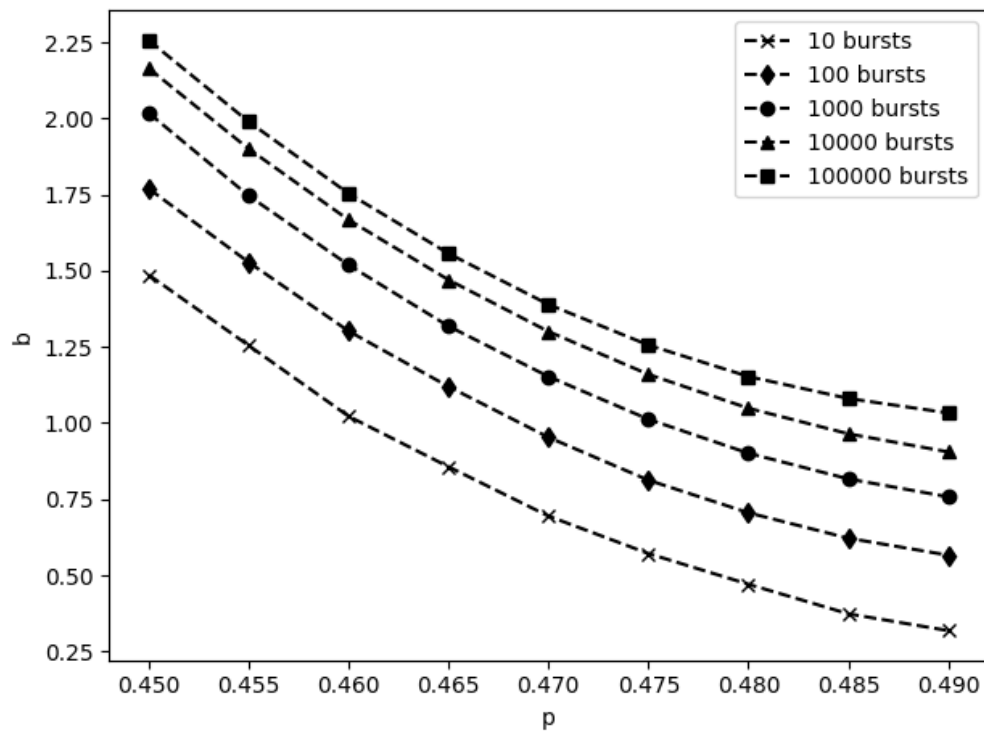


Figure 2: Fits for  $b$  with various number of bursts. For each simulation at some  $(p, N)$  we simulate 10000 clusters, except at  $N = 100000$  where we only simulate 1000 clusters.

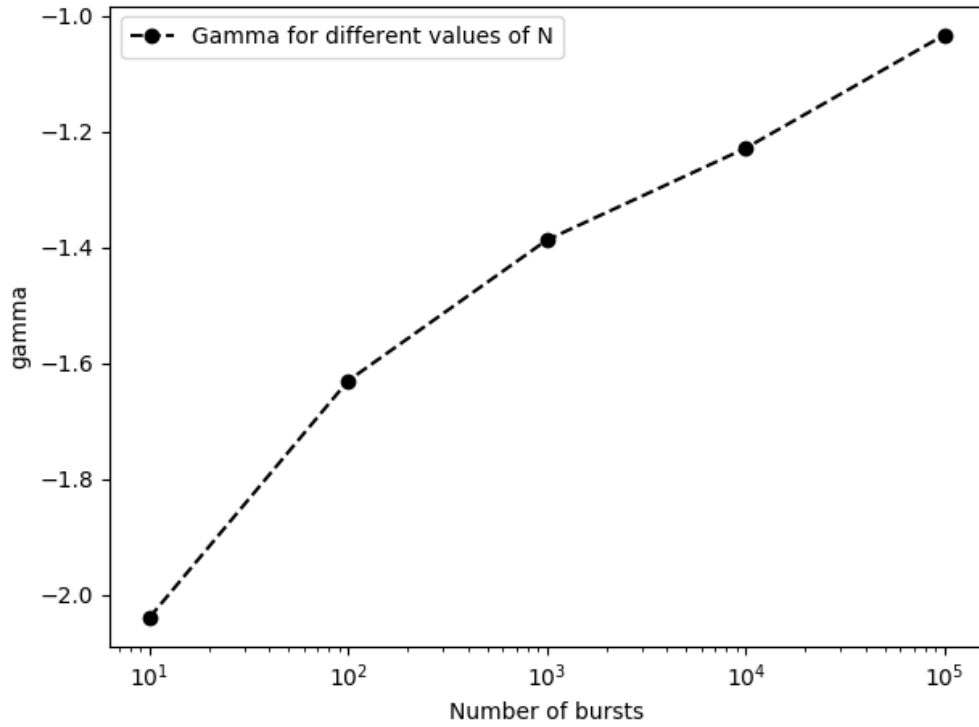


Figure 3: Fits for  $\gamma$  with various number of bursts. For each simulation at some  $(p, N)$  we simulate 10000 clusters, except at  $N = 100000$  where we only simulate 1000 clusters.

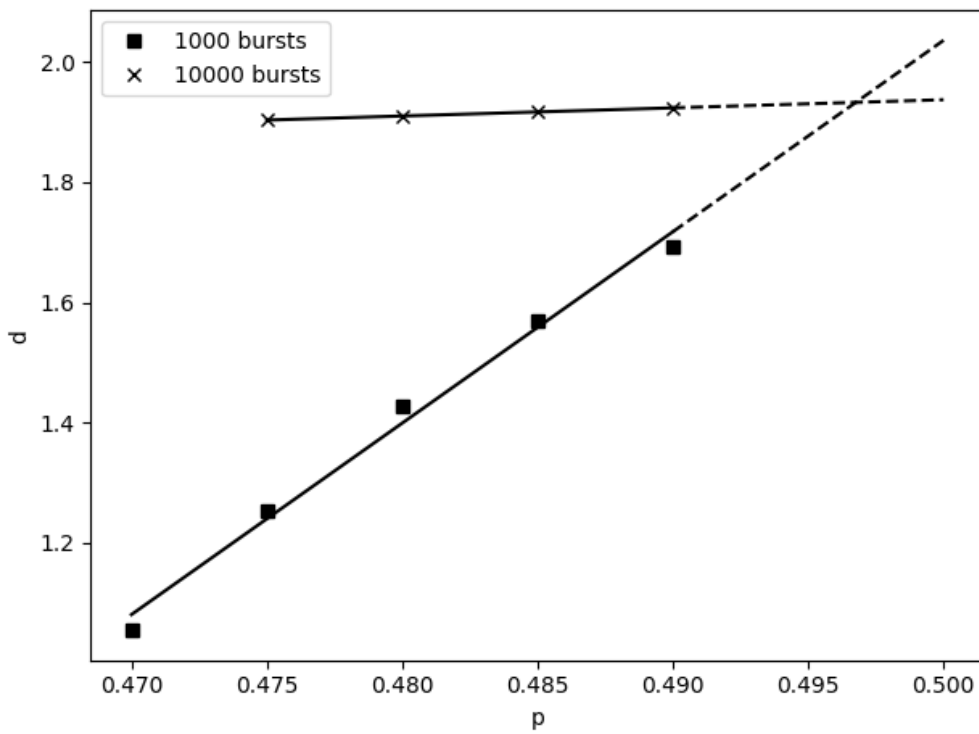


Figure 4: Fits for fractal dimension  $d$  with various number of bursts. For each simulation at some  $(p, N)$  we simulate 10000 clusters. For the fractal dimensions, only  $N = 1000, 10000$  are used. For smaller  $N$  the results are nonsensical, and for bigger  $N$  I run out of harddrive space.

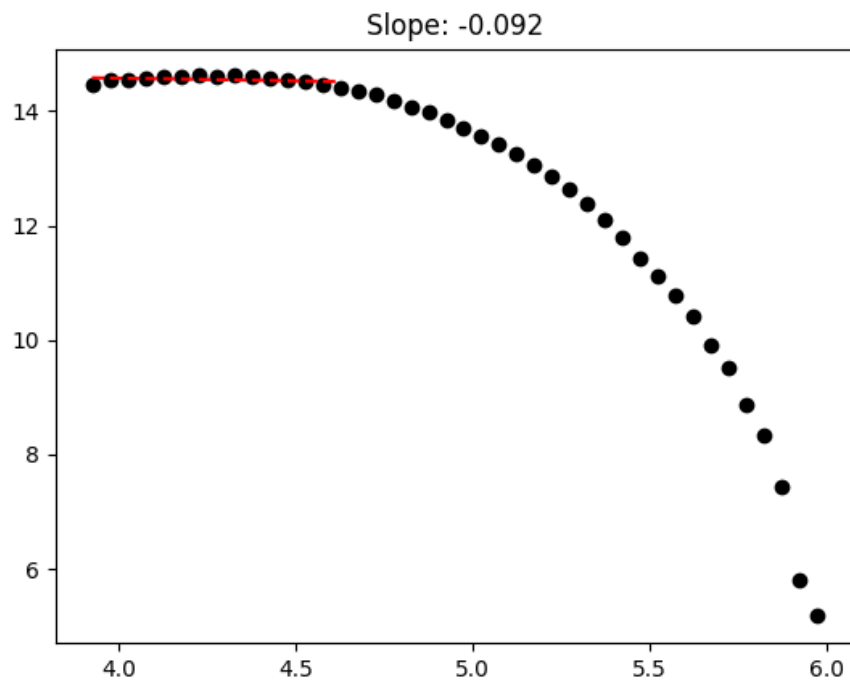


Figure 5: Fractal dimension fit for  $p = 0.475$ ,  $N = 100$  bursts. Does not make sense for low  $p$  and low  $N$ . Statistics are gathered over 10,000 clusters of  $N$  bursts.

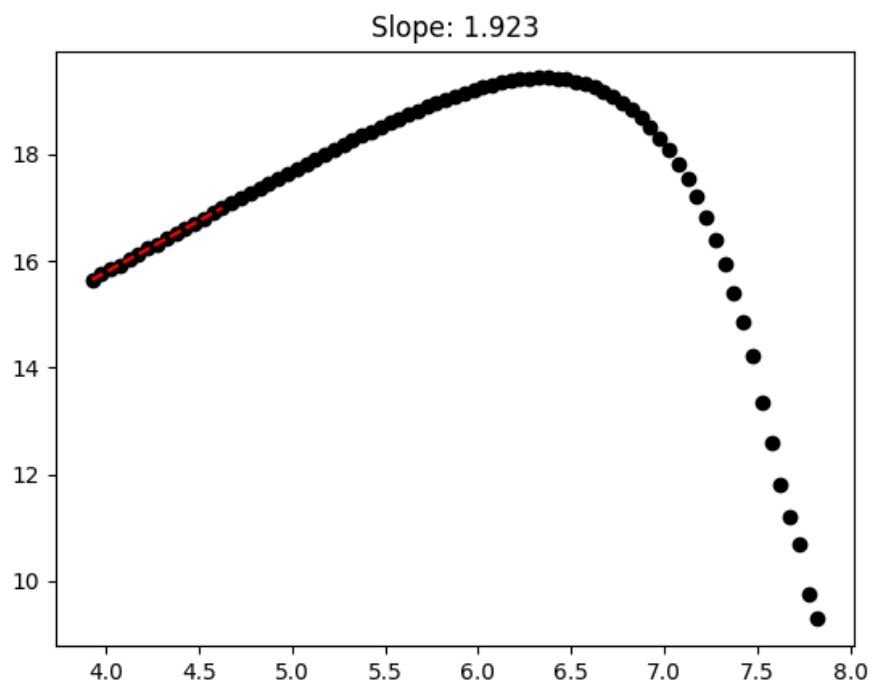


Figure 6: Fractal dimension fit for  $p = 0.49$ ,  $N = 10000$  bursts. It works here! Statistics are gathered over 10,000 clusters of  $N$  bursts.

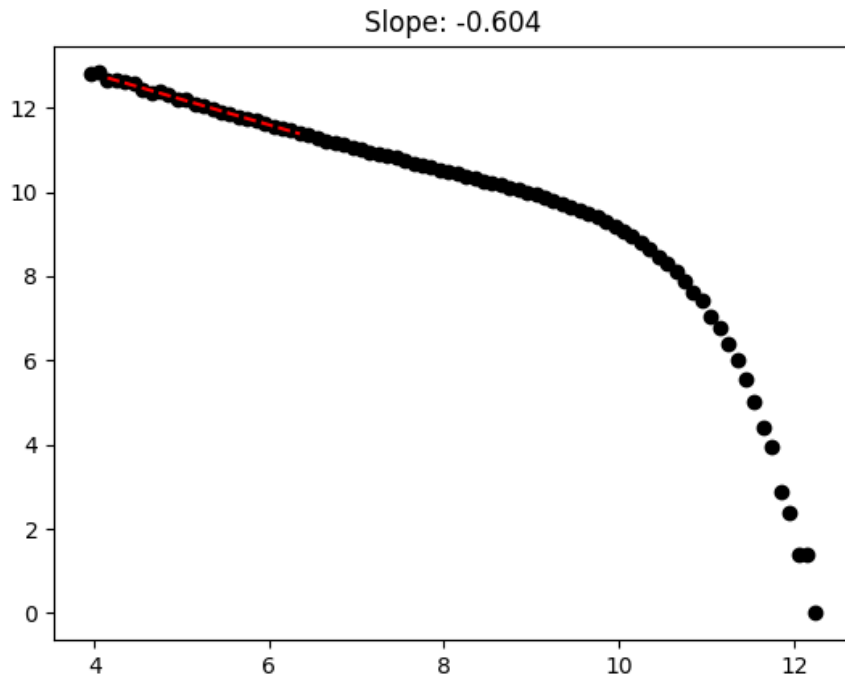


Figure 7:  $p = 0.49$ ,  $N = 10000$ . Fit for  $\tau$ . This seems to work fine at pretty much all scales. Statistics are gathered over 10,000 clusters of  $N$  bursts.

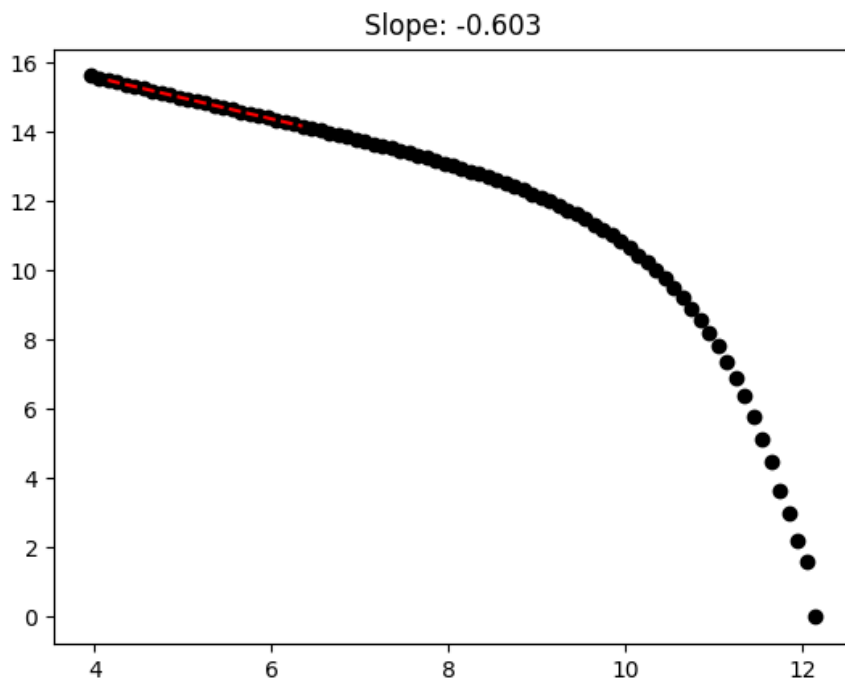


Figure 8:  $p = 0.49$ ,  $N = 10000$ . Fit on survivor distribution. We can sale this to match Gutenberg-Richter  $b$  value. Note,  $\tau$  and  $b$  seem to converge to the same value close to percolation threshold but not away from it. Again, 10,000 clusters of  $N$  bursts.

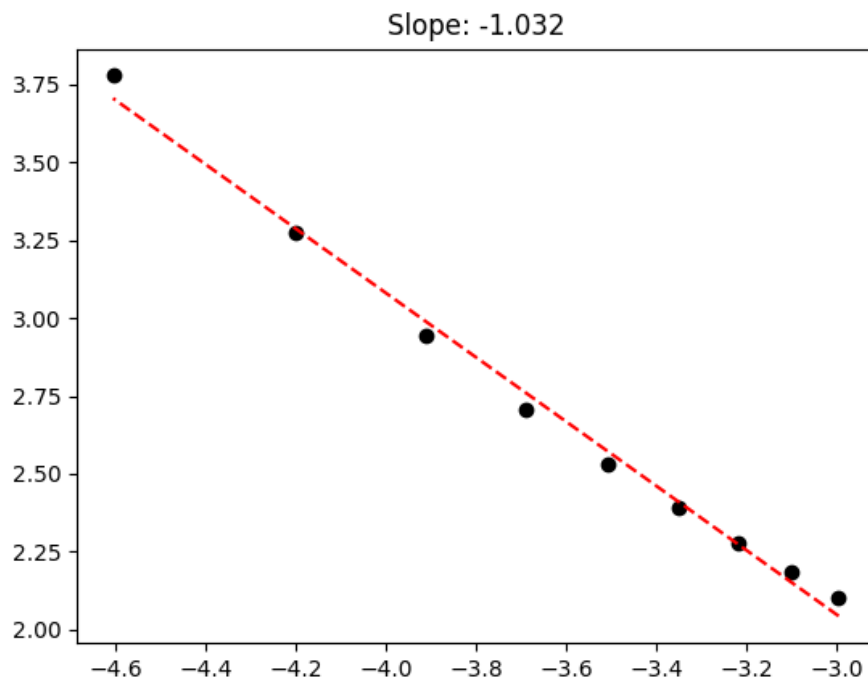


Figure 9:  $p = 0.49$ ,  $N = 100000$ . Here we plot the average cluster size for different values of  $p - p_c$  and recover the slope on log-log paper. Note we statistics on 1,000 clusters of this bigger  $N$  family.