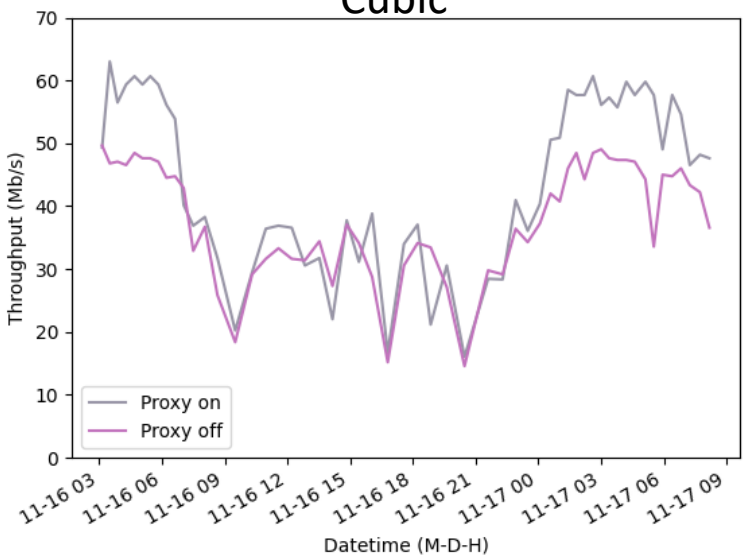
Methodology

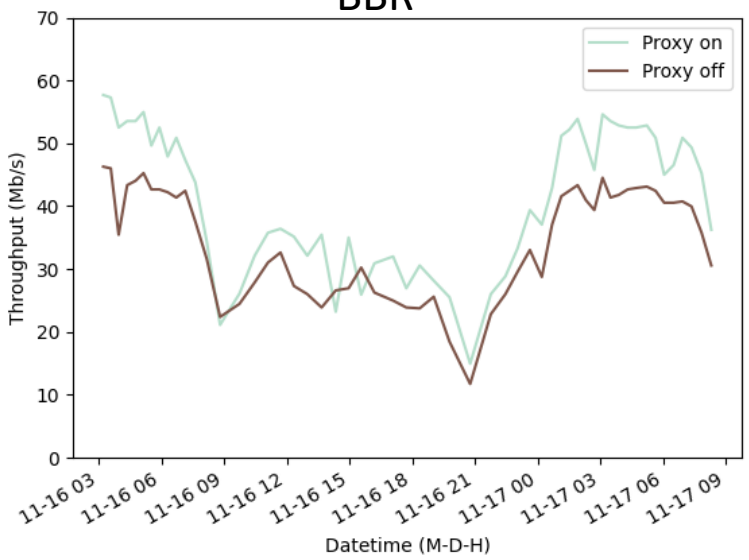
- 4 Machines * 2 Proxy modes * 55 rounds
- Last about 30 hours

Comparison of congestion control algorithms with proxy on/off

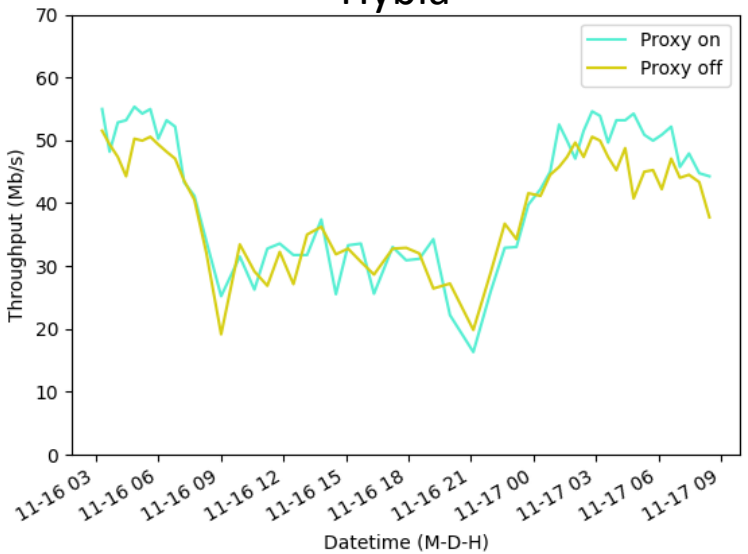
Cubic



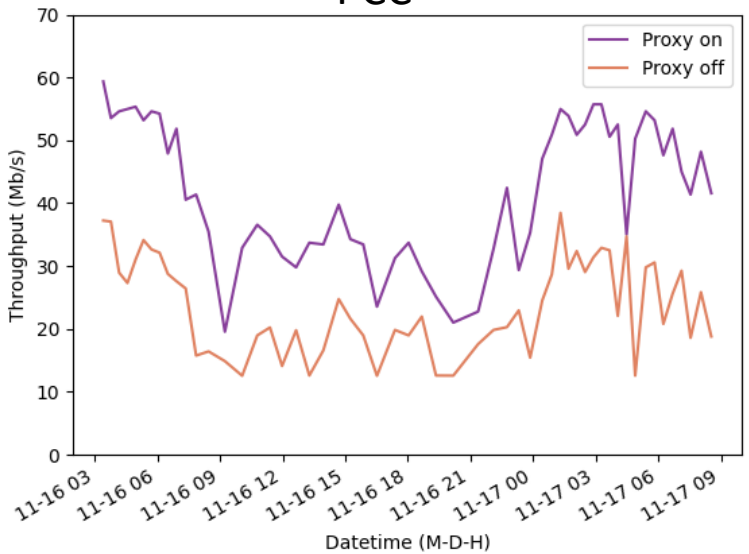
BBR



Hybla

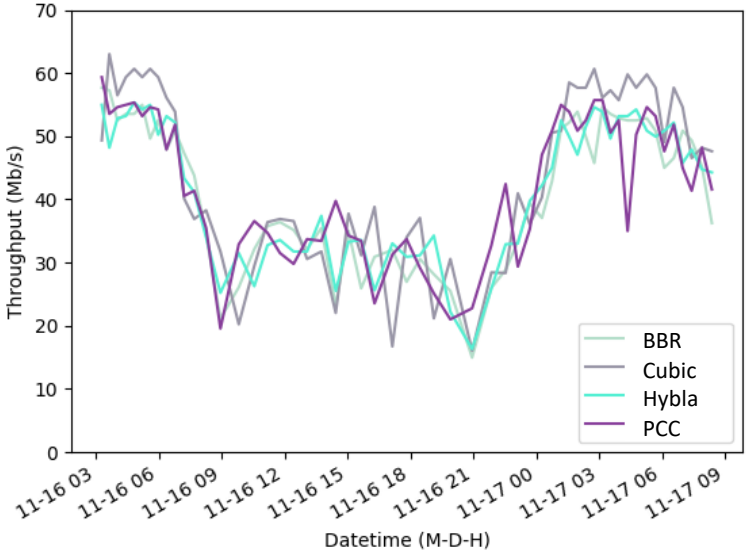


PCC

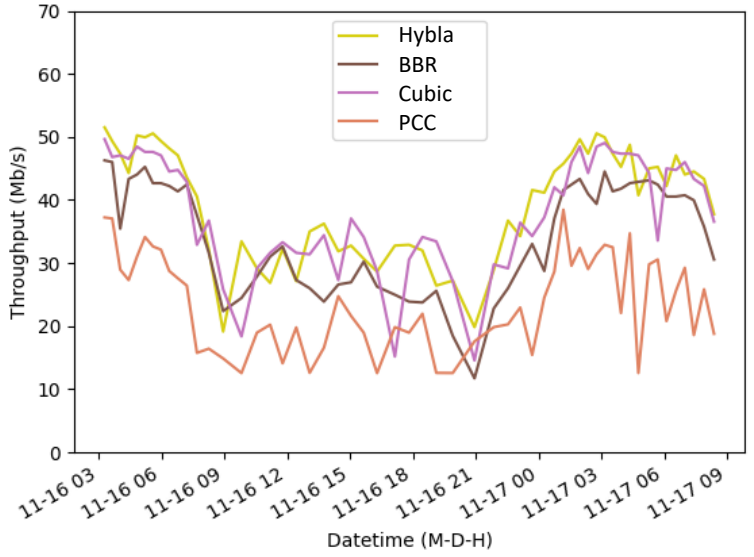


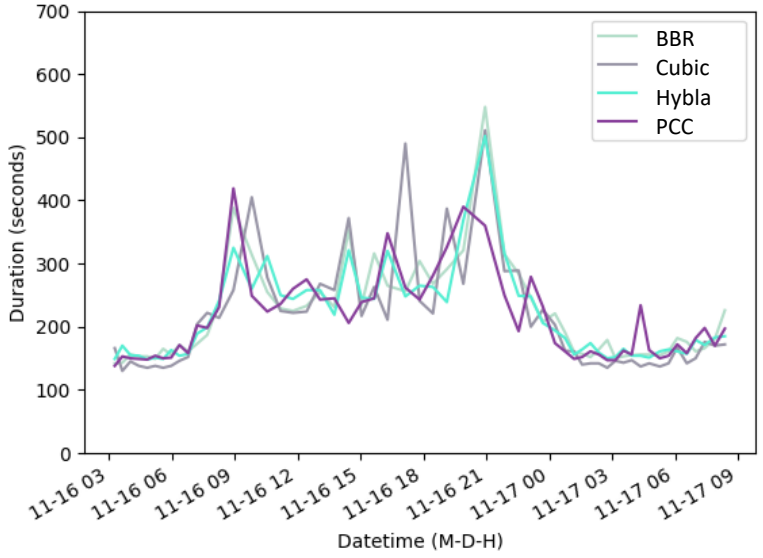
Comparison of proxy on/off across 4 servers

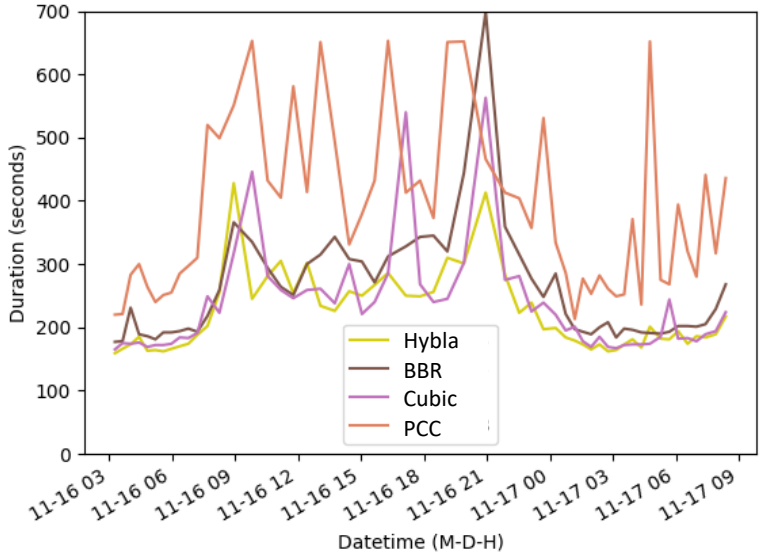
Proxy on



Proxy off

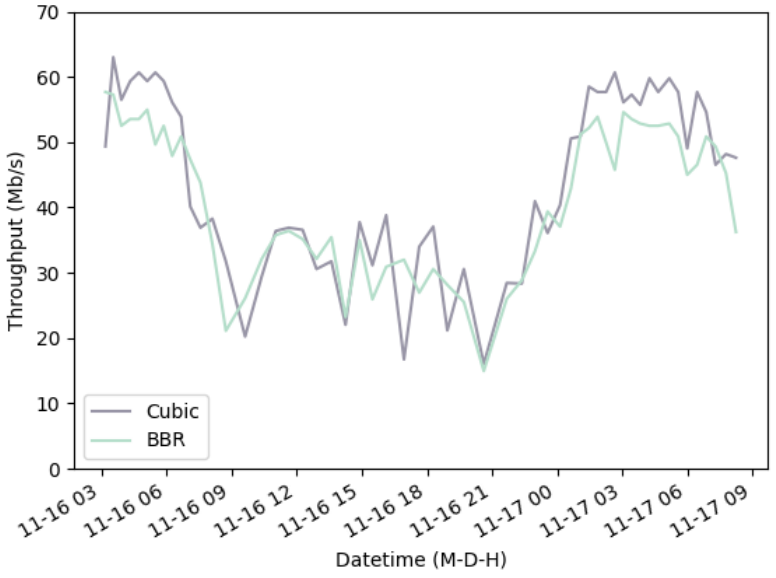




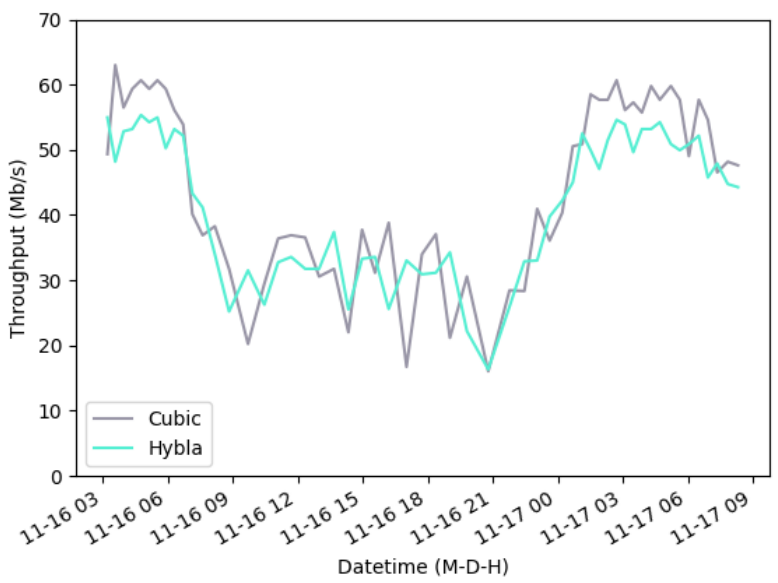


Comparison of cubic vs other with proxy on

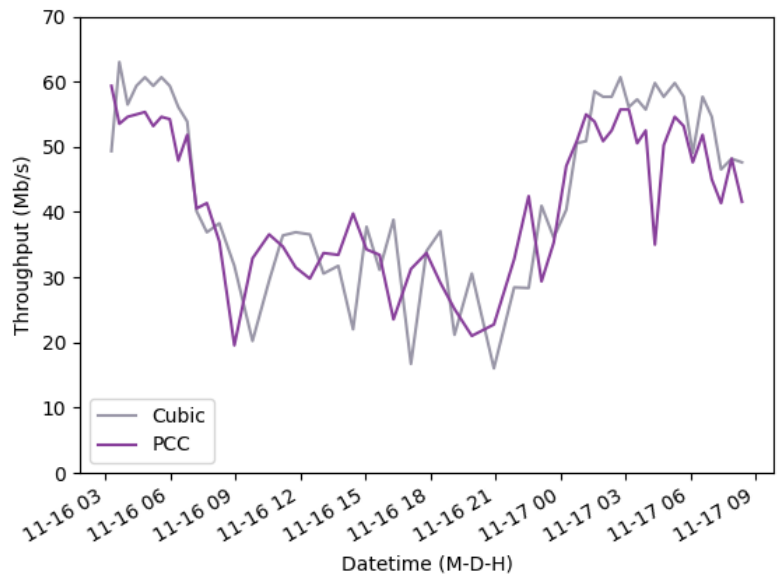
Cubic vs BBR



Cubic vs Hybla

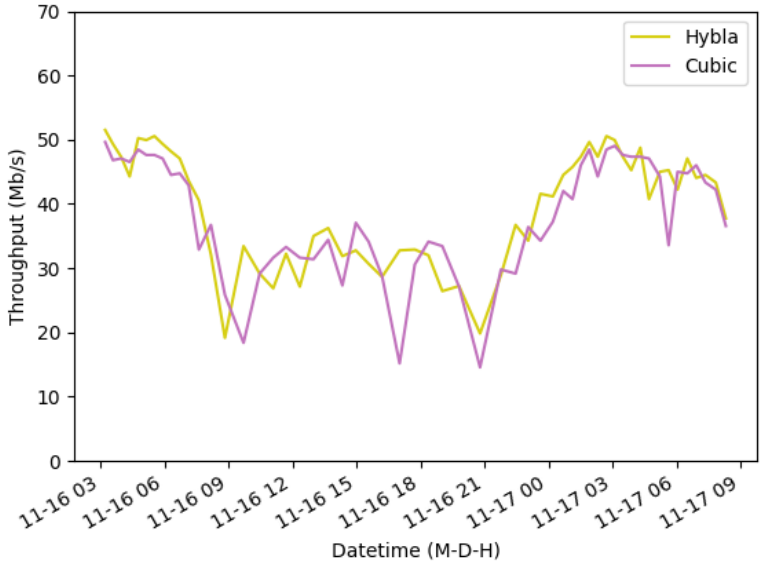


Cubic vs PCC

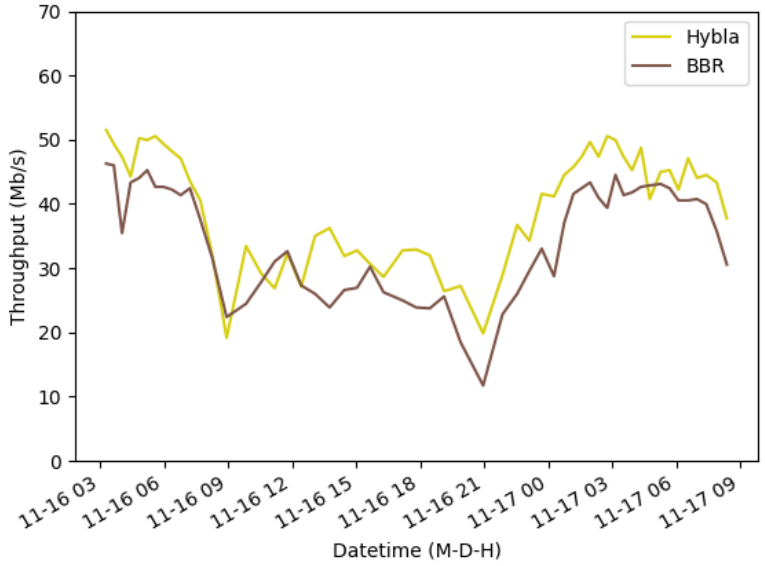


Comparison of cubic vs other with proxy off

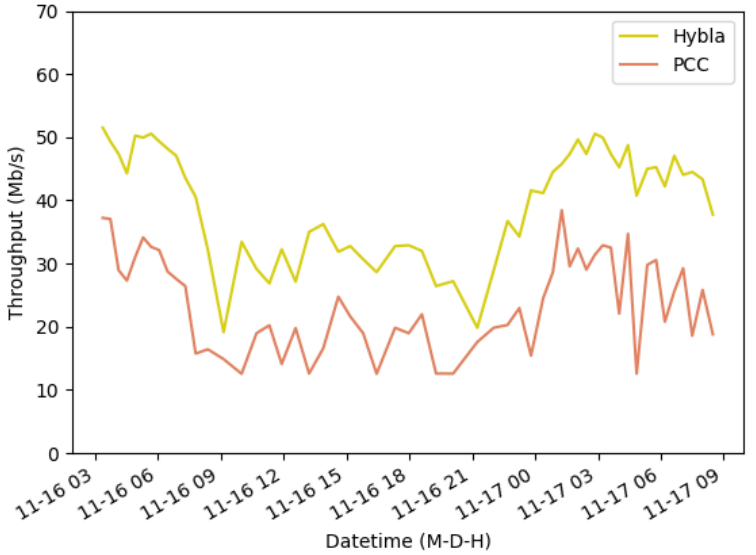
Hybla vs Cubic



Hybla vs BBR

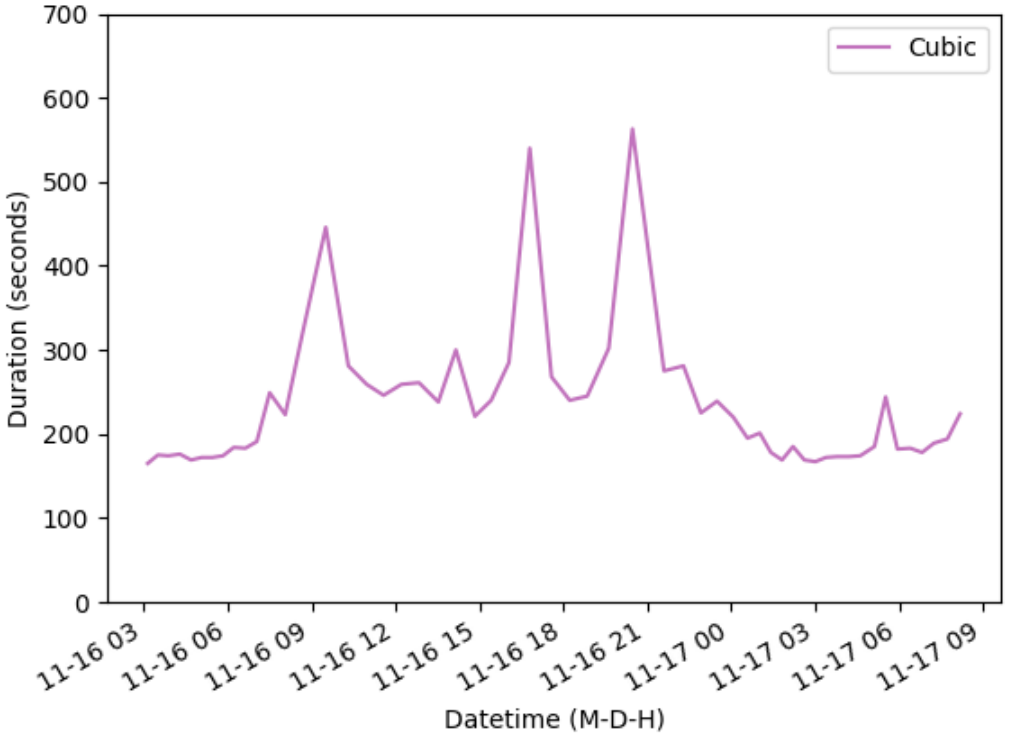


Hybla vs PCC

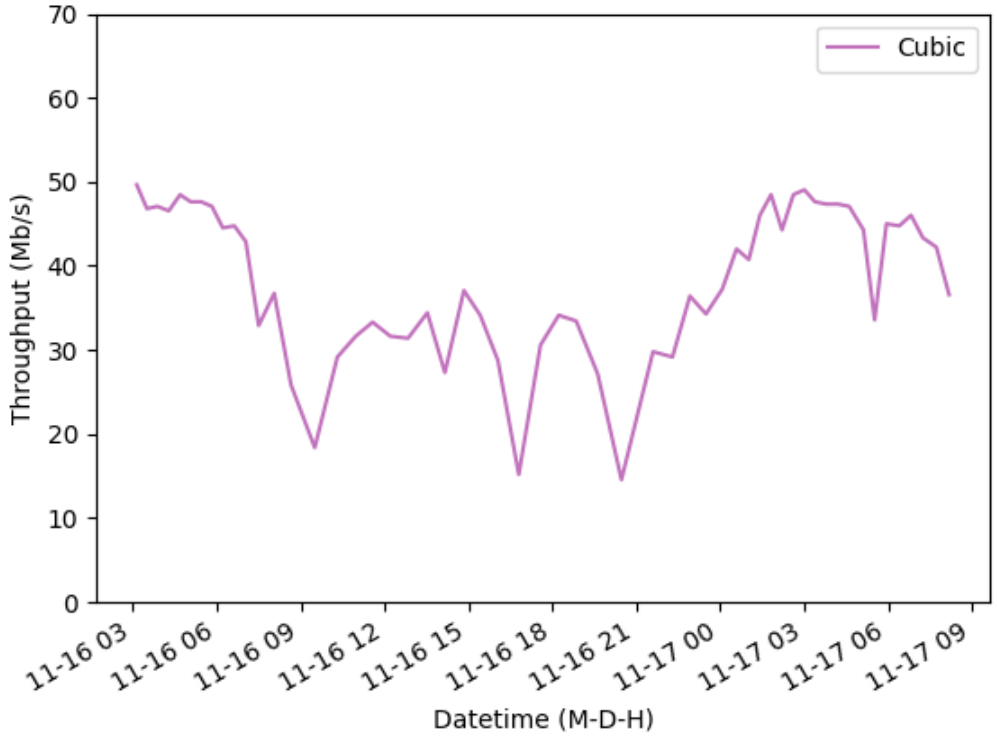


Busy hour traffic

Transmission time



Throughput



Next Step

1. Run more trails with 24 hours time length
2. Calculate average differences (table with avg diff & std dev) between proxy on/off
3. Analyzing busy/non-busy hours/period
4. Statistical significance test (t-test) & effect size(noise)
5. BoxPlots based on summary csv file
6. Hystart off/on
7. Record RTT/Loss
8. Three way hand shake (Tcp.init_rtt)
9. Taking the best & worst case
10. Verify peak in a single trail
11. UDP Ping in script (250ms)
12. Cdf distribution
13. small objects