TCP Congestion Control: Additive Increase

Packets in transit during additive increase, with one packet being added each RTT.

TCP Congestion Control: Sawtooth Pattern of AIMD

Value of CongestionWindow as a function of time
TCP Congestion Control: Slow Start

The Interplay of Slow Start and AIMD

Behavior of TCP congestion control. Colored line = value of CongestionWindow over time; solid bullets at top of graph = timeouts; hash marks at top of graph = time when each packet is transmitted; vertical bars = time when a packet that was eventually retransmitted was first transmitted.
Fast Retransmit

Fast retransmit based on duplicate ACKs

TCP with Fast Retransmit

Trace of TCP with fast retransmit. Colored line = CongestionWindow; solid bullet = timeout; hash marks = time when each packet is transmitted; vertical bars = time when a packet that was eventually retransmitted was first transmitted.