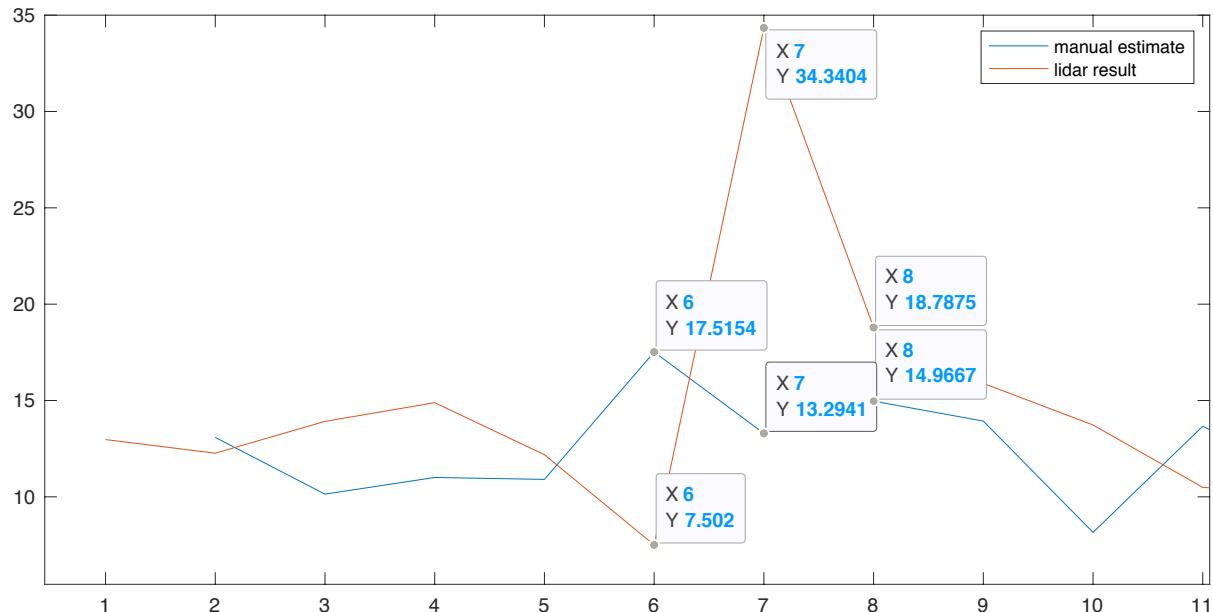


Explanation for inaccurate Lidar TTC

It is observed that Lidar TTC jumps a lot in response to noisy derivative (difference) in the distance to minimum point. Since it is very sensitive to the difference, the TTC results jump on frames 6,7,8.



The manual estimate is calculated from the minimum distance to lidar point and velocity based on that. However, both those quantities are smoothed to remove noise especially in the difference. We expect the TTC to be in the range 13-17s but the lidar TTC jumps with values like 7.5s and 34.3s which is significant. The following are the frames being talked about.

