

1a)

Correct and clearly.

1b)

Correct and clearly.

1c)

Correct, but I think the plot should be more clear.

1d)

I think the EKF is also worse in the case3. Second part is wrong. The UKF and CKF should be more computationally expensive than the EKF.

2a)

I think if you plot the result of the UKF, CKF and EKF separately, the result would be more clearly.

2b)

I think if you plot the result of the UKF, CKF and EKF separately, the result would be more clearly. And the reason for why the error covariances represent the uncertainty well is not sufficient.

2c)

I think the EKF performs worse than the UKF not better.

3a)

I think you should explain what happens for each scenario.

3b)

No answer in the report, but show the result in 3c).

3c)

Your plot is not complete. You did not plot the measurements and you did not legend the corresponding covariance contours at every 5th estimate.

3d)

I think it may not be possible to have accurate estimates of those three states for the whole sequence since the conflict exists. And I think your answer is not complete. You did not answer the question: How about the transitions from straight to turning and from turning to straight?