A tracker is not merely a Kalman filter. A huge problem in a radar target tracking is what's called "plot-to-track association". How do you determine which new detection(s) 'belongs' to which track?

A lot of work have been done on this subject. Here's a not-new neural network based algorithm, from a time, suggesting using a neural network for solving this problem and a recurrent neural network for tracking. A paper from a time in which there were no colorful network architectures and sweet-on-the-eyes fonts.

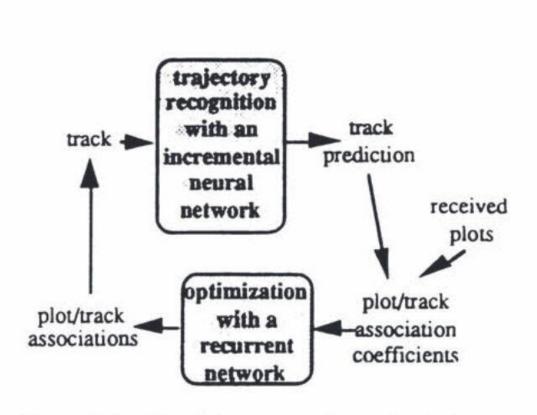


Fig. 1. Principle of the proposed neural solution

Activate link to view larger image.

https://www.sciencedirect.com/science/article/pii/S1474667017477780