

## A. Trajectory set visualization

Figure 6 visualizes the trajectory sets for fixed, hybrid, and dynamic trajectory set generation functions to better understand the space CoverNet learns to classify over. We present the fixed trajectory sets for different coverage levels and the dynamic trajectory sets for a fixed coverage level but varying speeds.

## B. $\min\text{ADE}_1$ over the prediction horizon

In Figure 7, we show the  $\min\text{ADE}_1$  for the best regression and CoverNet models to demonstrate how the performance of the different methods scales with time. We note that all of the methods show similar performance over time for the most likely mode.

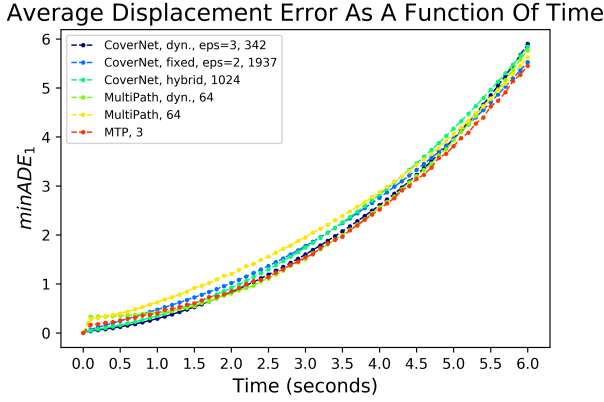


Figure 7: The  $\min\text{ADE}_1$  over the prediction horizon for the best regression and CoverNet models on our internal dataset.

## C. Greedy Approximation Algorithm

In 3.3, we detail our *bagging* algorithm. This is a greedy approximation algorithm for solving (1).

In this work, we utilize a deterministic variant of this algorithm, detailed in 3.3. We mention that another possibility is to use a random version of this algorithm. This variant makes a weighted random choice based on how many uncovered trajectories the candidates are covering until there are no more trajectories to cover. This can be repeated many times to obtain multiple bags, and we can choose the cover set based on the smallest number of elements.

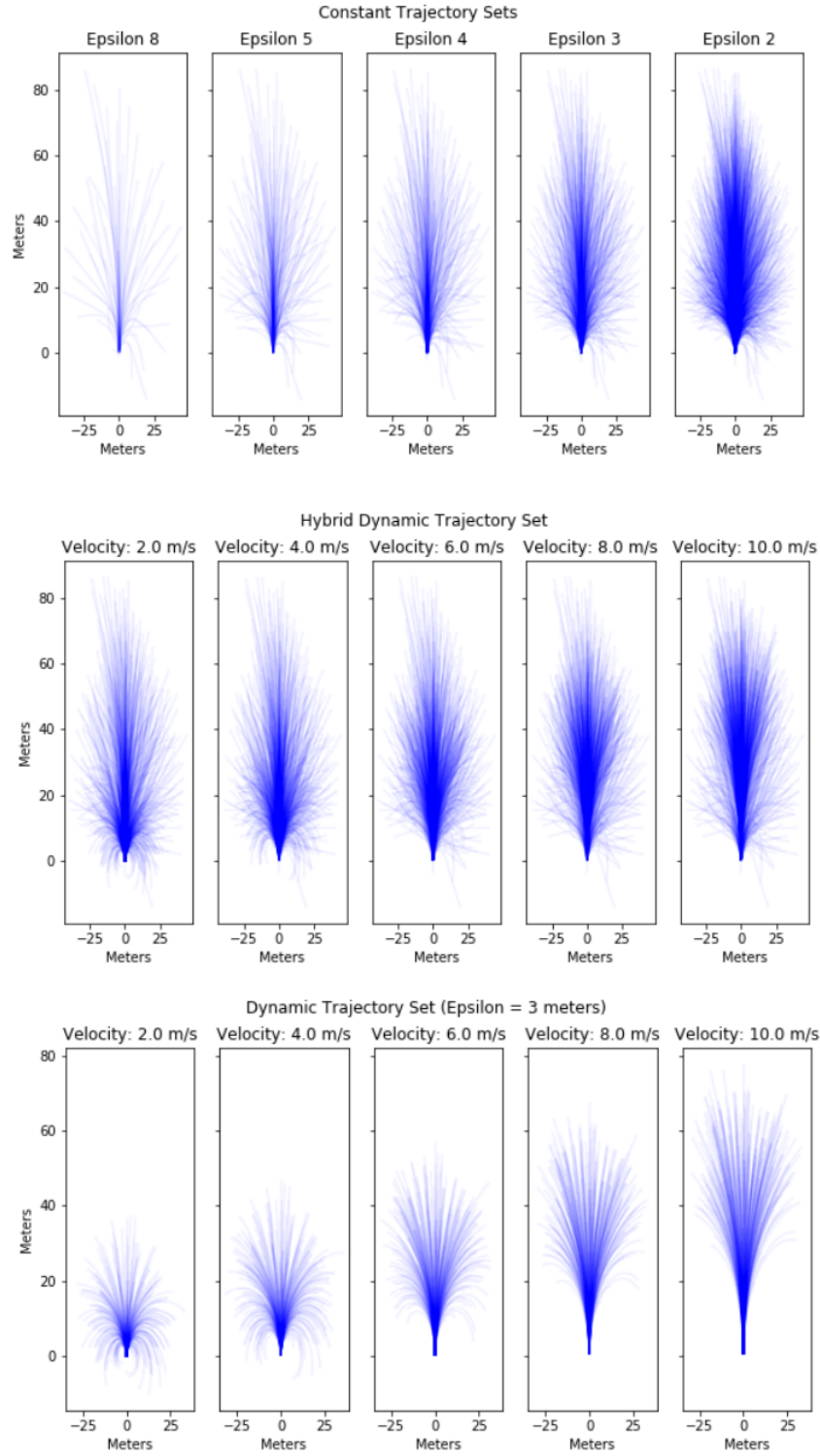


Figure 6: Visualization of fixed and dynamic trajectory sets for different coverage levels on the internal dataset for a 6 second prediction horizon.