Questions

Chirantan:

1. When the paper talks about minimizing the error in a sample location, is it referring to optimizing the length scale at that location?
2. What can cause the abrupt changes shown in fig. 4? Can the sensors of the robot be responsible?
3. Is having a smaller length scale in partition 3 (fig. 2) ideal due to the smaller magnitude of the abrupt changes?

Zongyao:0

1. What are the main differences between stationary Gaussian processes and nonstationary Gaussian processes? How does it limit the modeling flexibility of stationary Gaussian processes?

Nolan:

1. What are your thoughts on the assumptions of the model? E.g., the assumptions that the transition function is known+deterministic and the robot state is observable.
2. What’s meant by ensuring injectivity? Why is this important?

Quan:

1. In Eq. (4), why do they use evenly lengthscales? Does it have any underlying intention or is it just for mathematical simplicity (for integration)?
2. Why do they use prefixed lengthscales to vary the kernels? It seems plausible to learn a parametrized function for lengthscales, like the baseline from ref [66].