PFLOCK Report

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Working on Brinkhoff dataset

- Double-checking some figures. Length of trajectories (in time instants):
- Original dataset:

avg	min	max
2218.39	82	2665

- New dataset:

avg	min	max
556.40	1	1134

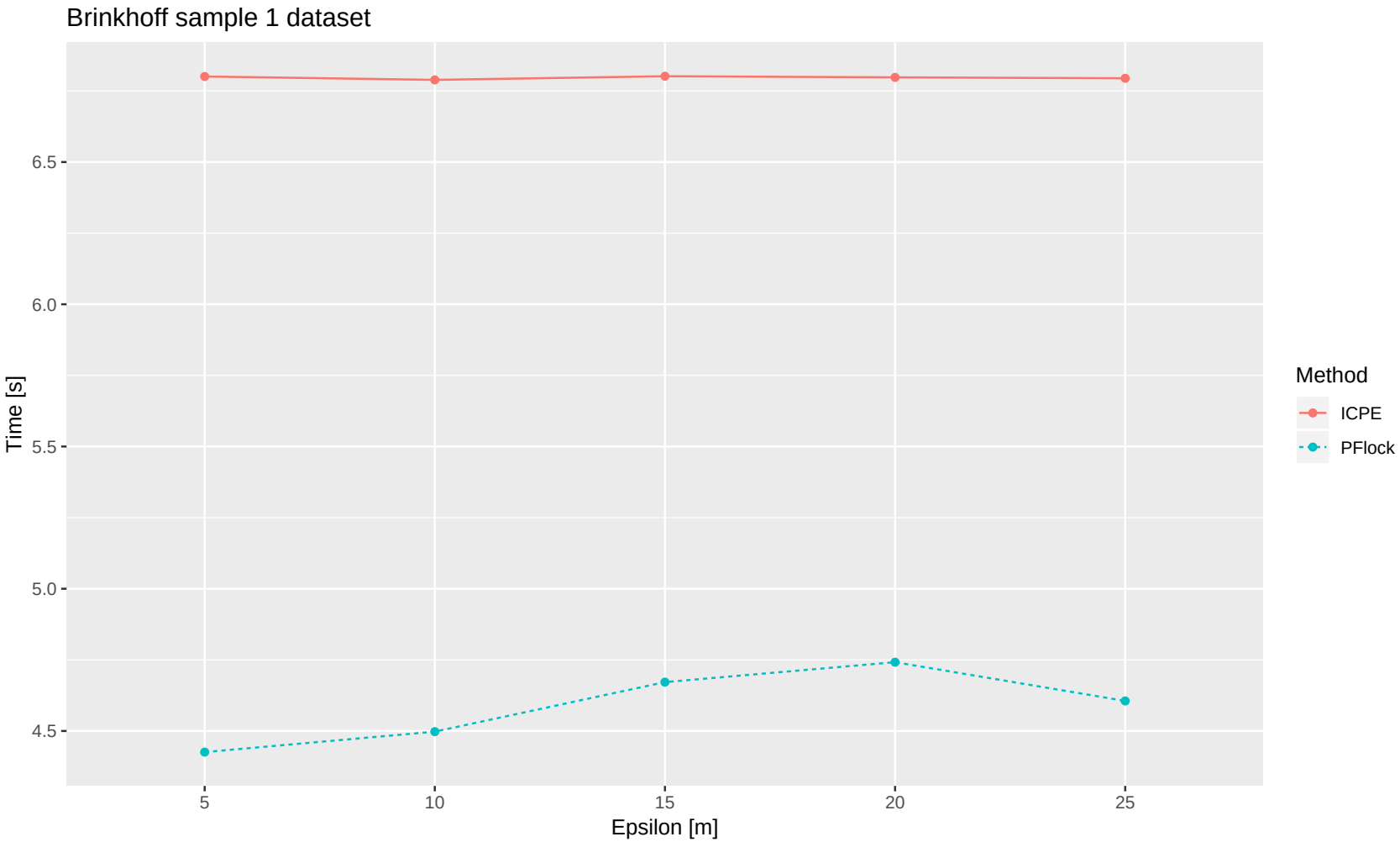
- I have prepared some notebooks with additional computations...

Performing experiments in Brinkhoff dataset

- I have run two set of experiments on the Brinkhoff data. They are based on some samples in order to not run over the full set of time instants (92286).
- First sample run over the first 100 time instants which have a low number of points per time instant.
- Second sample run over 200 time instants around the peak concentration of points (time instant 44166).

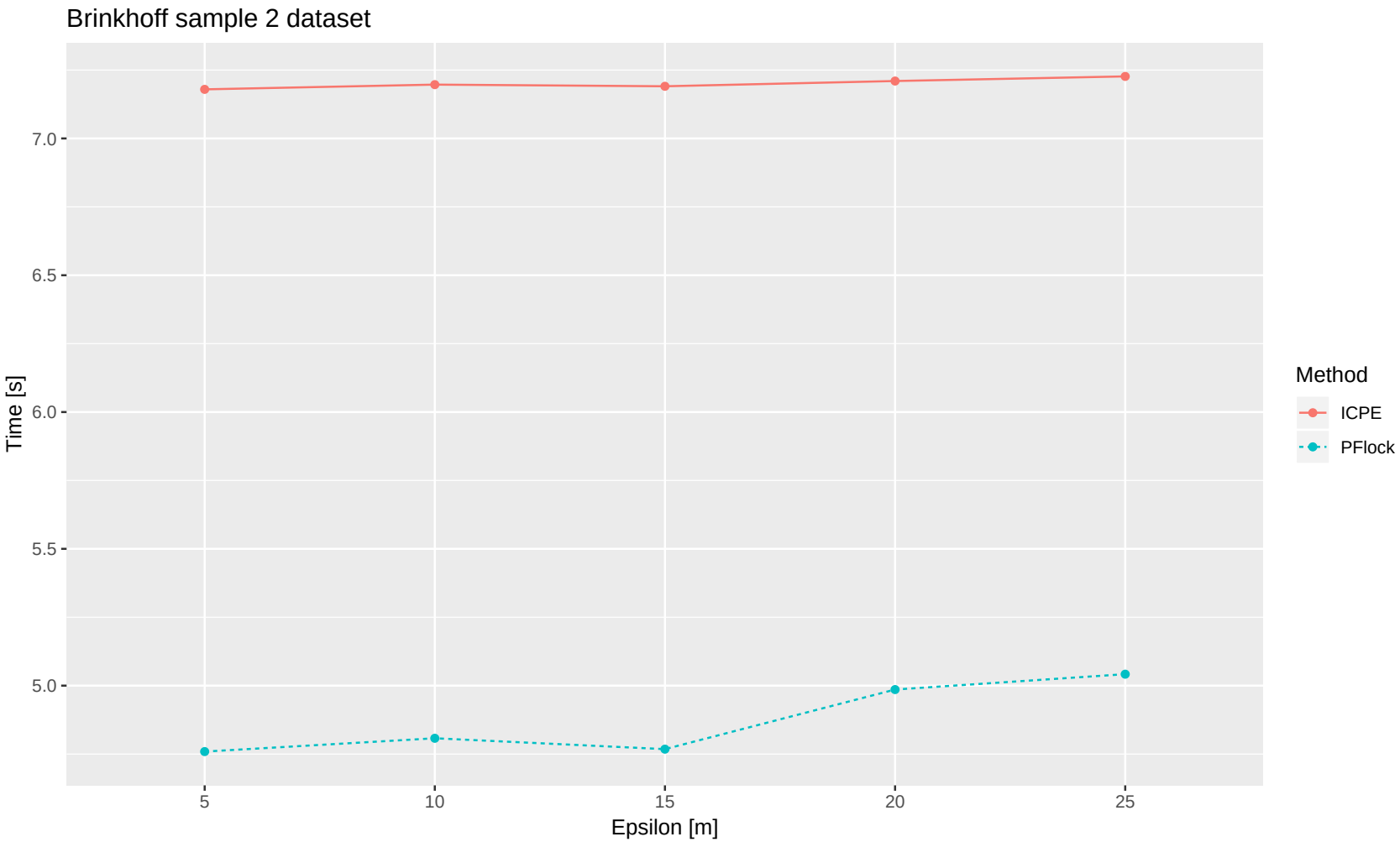
Performing experiments in Brinkhoff dataset

Sample 1: 100 Time instants from 0 to 100 (≈360 points per time instant).



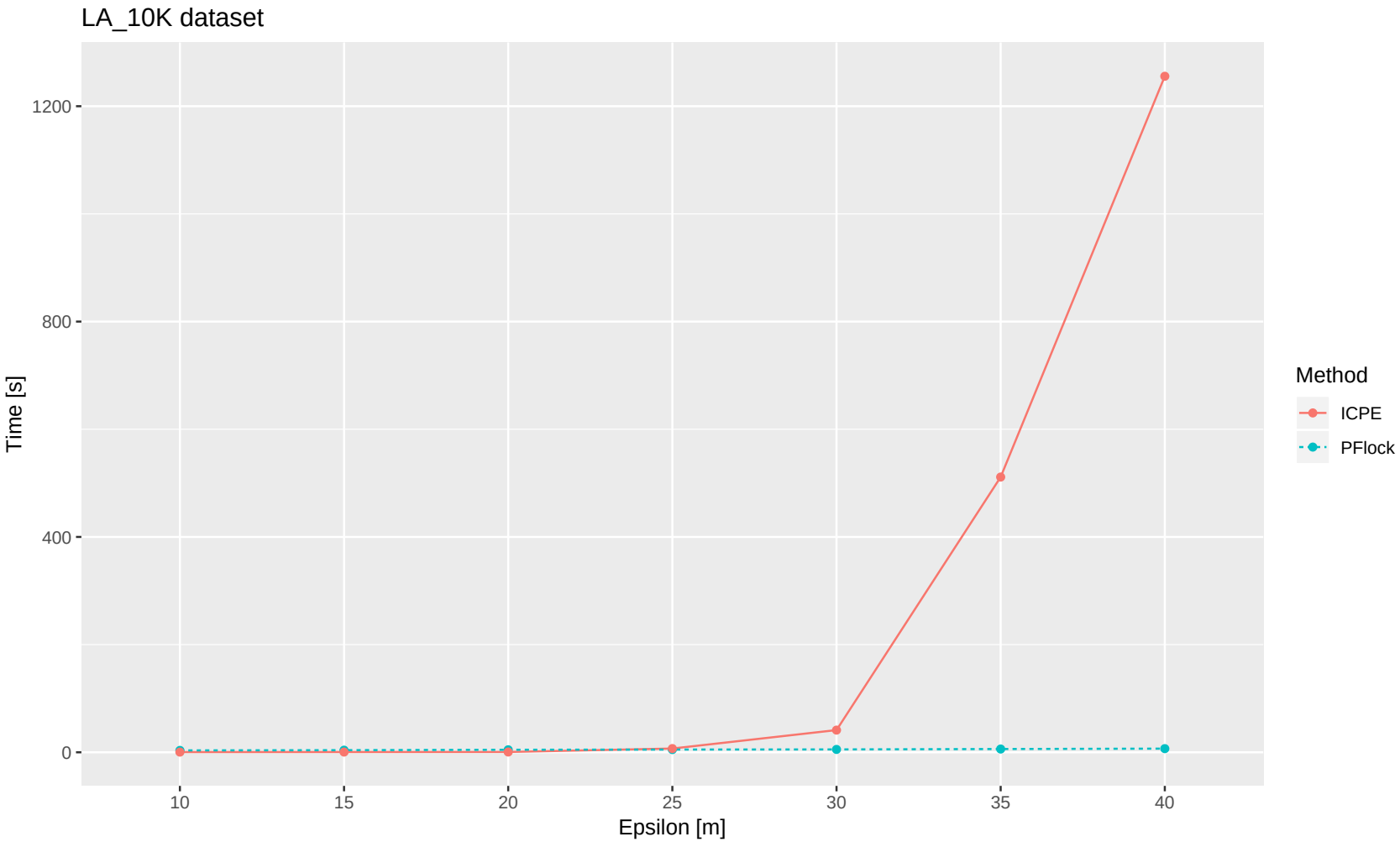
Performing experiments in Brinkhoff dataset

Sample 2: 200 Time instants from 44K to 44.2K (≈813 points per time instant).



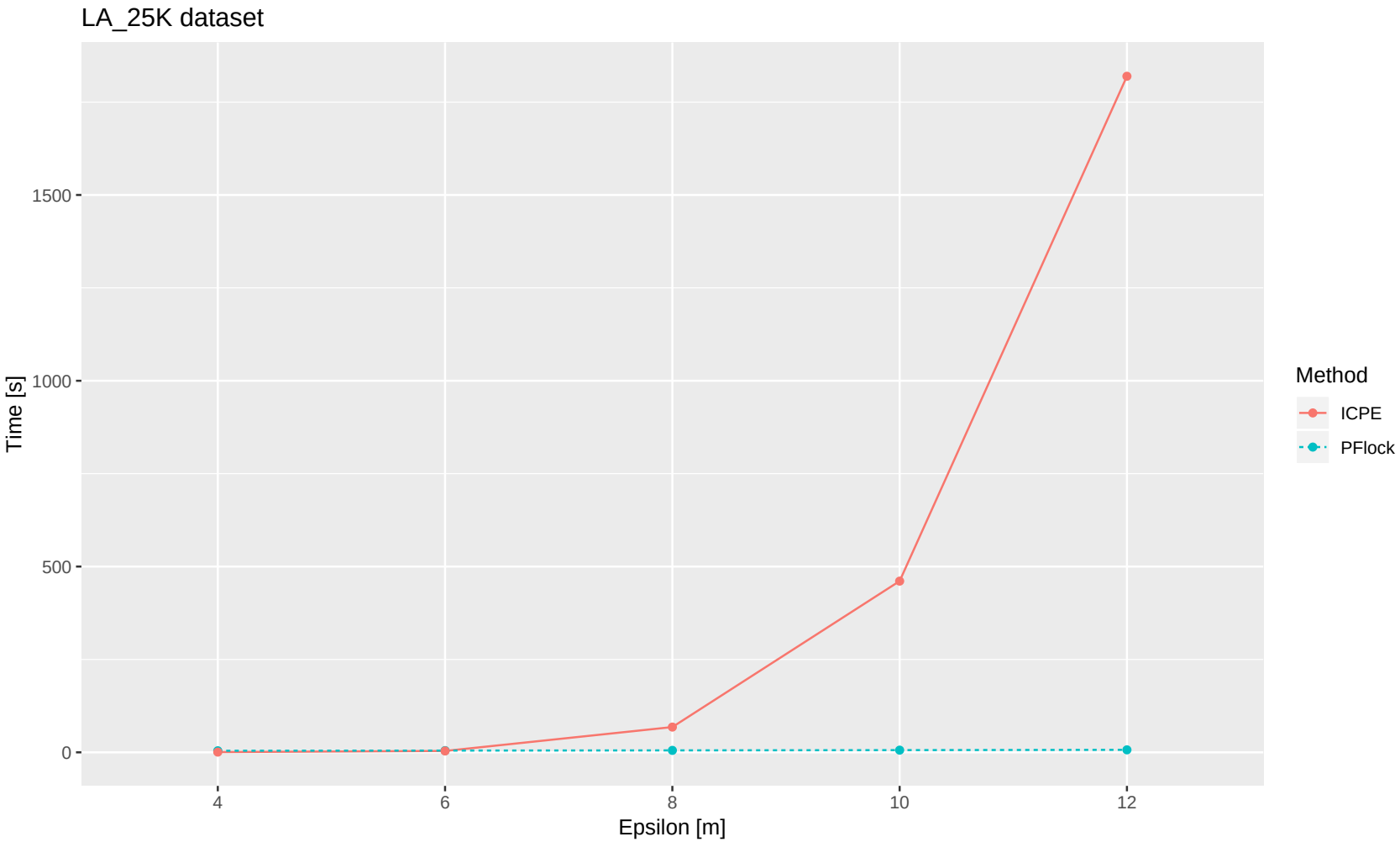
Re-visiting LA dataset

with updated code.



Re-visiting LA dataset

with updated code.



What is next?

- I am still working on adapting the ID-based partititioning under the Spark Streaming environment. I have finished integrating the code but I am getting problems to coordinate the window operations and the ingestion of the data.
- Once it is fixed I expect to implement the Fixed Length Bit Compression method as proposed on Chen et al.