

Towards Parallel Detection of Moving Flock Patterns in Large Spatio-temporal Datasets

Report Outline

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November 11, 2016

1 Introduction

In this section I plan to discuss background information and motivation about the topic. Importance of trajectory datasets and complex motion patterns will be discussed. I would like to introduce the notion of moving flock patterns and the challenges to find the set of disks together with some basic definitions.

2 Related Work

Some work about spatio-temporal patterns will be revisited in order to introduce some seminal work about moving flock patterns. BFE algorithm must be presented in this section. Similarly, I would like to discuss some advances in spatial data analysis tools in distributed platforms (in particular Simba).

3 Finding disks in parallel

I plan to explain the details of the algorithm implemented in Simba and how some spatial predicates introduced by it can leverage the finding of disks.

4 Experiments

The setup and details about the datasets I plan to use will be discussed in this section. It will show some figures comparing the implementation with a sequential version of the algorithm.

5 Conclusions and Future Work

I will share the lessons learned during the project and some future ideas to continue with the research.