

# Scalable Flock Patterns Finding

UCR

February 2, 2021

## 1 Methods

The present section explores two methodologies to identify moving flock patterns in large spatio-temporal datasets under a scalable environment. It aims to take advantage of state of the art distributed framework to partition de spatial data and improve the execution time of current methods for flock finding.

The first method follows slightly the same steps proposed by Vieira et al under the definition of the BFE algorithm. However, our proposal add a partition strategy in order to spatially divide the data and assign each partition to different workers. Each worker is in charge to process their data and produce the local results. Finally, our method merge and clean the results in order to prune possible duplicate and subsets in the local findings.