# CC_TRS: continuous clustering of trajectory stream data based on micro cluster life

## ABSTRACT

The rapid spreading of positioning devices leads to the generation of massive spatiotemporal trajectories data. In some scenarios, spatiotemporal data are received in stream manner. Clustering of stream data is beneficial for different applications such as traffic management and weather forecasting. In this article, an algorithm for Continuous Clustering of Trajectory Stream Data Based on Micro Cluster Life is proposed. The algorithm consists of two phases. There is the online phase where temporal micro clusters are used to store summarized spatiotemporal information for each group of similar segments. The clustering task in online phase is based on temporal micro cluster lifetime instead of time window technique which divides stream data into time bins and clusters each bin separately. For offline phase, a density based clustering approach is used to generate macro clusters depending on temporal micro clusters. The evaluation of the proposed algorithm on real data sets shows the efficiency and the effectiveness of the proposed algorithm and proved it is efficient alternative to time window technique.