

## **Poster Snapshot**

### **Clustering Based on Recursive Binary Splitting using max-MMD**

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We propose a novel clustering algorithm for functional data based on the notion of maximum mean discrepancy (MMD). We exploit a relation between the MMD between two pure distributions and the MMD between any two different mixtures of those pure distributions. This property leads us to develop the new clustering algorithm which is done by iterative binary segmentation. We consider both the cases: when true number of clusters is known and when it is unknown. In the later case, we propose how to estimate the number of clusters. We apply our approach to a variety of simulated datasets and some real dataset and obtain excellent performance in most of the cases.