Compte rendu Imex

Andrea Combette

Contents

I Introduction

The processing of a neural signal can provide a wealth of information. Knowing which neuron is excited at a given moment, we can understand to a certain extent the language of our brain. The classification of neuronal signals is therefore a key area of neuroscience, enabling us to real-time analysis of cerebral information to trace the motor actions envisaged by the subject

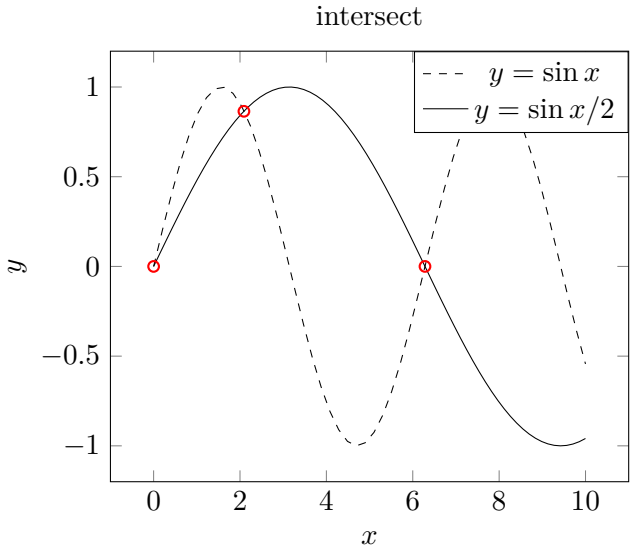
II Lussac sorting: Clustering and Outliers detection in high dimensional space

1 Lussac global view

Lussac is a pipeline used for merging and post-processing multiple spike-sorting analyses. The goal of this first part is to optimize the decision process, when **lussac** deals with multiple sorted neurons or analyses.

2 Clustering with node's relations

First we have to cluster the analyses, neurons coding for the same 'real neuron'.



3 Eliminating outlier with 2nd clustering

a Node Space

b Differents Methods