You have a pdf file with the article.

You have several sets of data:

* a simulated one : neuron1 and neuron2
* two real ones :
  + neur1\_13 and neur2\_13
  + neur1\_40 and neur2\_40

neur1\_13 and neur2\_13 are recorded during the same experimentation and correspond to 2 different neurons.

We want to know if their activity are locally independent or not, it means, during the time of the record, is there some place where the activity is independent and some others time intervals where this is not the case.

To be able to do this, we should read the article and try to reproduce the analysis done. This means that you have some code to write.

Description of a file:

each row corresponds to a trial (one record) Thus you have repetitions.

the first column contains the number of spikes during a trial

the other columns contain the time of arrival of a spike. The 0 at the end is just because we save the data in a matrix. They should not be taken into account.

The first row of neur1\_13 is associated to the first row of neur2\_13.

Simulated data Hawkes processes (point processes)

You can ask me all the questions that you want.