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Detection of the first-spike latency

Response latency is the duration between the delivery of a stimulus and the response. In neurosciences, it is of interest to study the first-spike latency, i.e. the intertime between the onset of a stimulus and the first-response spike. However, when spontaneous activity is observed, this task becomes more complicated. To deal with this problem, we apply the statistical method introduced recently by Lansky et al. [1]. Some preliminary analysis on real data as well as some theoretical results on Wiener processes are here presented.

References

[1] P. Lansky et al. (2010), *First-spike latency in the presence of spontaneous activity*, Neural Computation **22**, 1675–1697.