h-coefficient

Disclaimer: Please be aware that this toolbox is currently in version 1.0. The code was completely re-authored based on the analysis described in the publication that introduces the h-coefficient (submitted). Accordingly, the code has been commented throughout and should now also be easier to understand; however, as a result it may now also contain errors or bugs. If you come across any such issues please do contact the author so that these problems may be remedied in a future update of th toolbox.

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Thank you for downloading the h-coefficient Matlab® toolbox V1.0. The toolbox consists of two core scripts: `expsim` and `hcoeff`. `expsim` simulates data and generates peristimulus time histograms according to the parameters set inside the script. `hcoeff` then takes the output from `expsim` and calculates the h-coefficient for the simulated data. To try the scripts out you can use the additionally provided script `Doitall`. The toolbox relies on two additional toolboxes, which you can download under the following links: ssvkern (Copyright (c) 2009, 2010, Hideaki Shimazaki) and jbfill (Copyright (c) 2006, John Bockstege).

To get started:

- Load `Doitall` into Matalb and change the variable '`saveto_path`' at the beginning of the script to some local directory where you want to save your data, execute this first section of the script as to add the variable '`saveto_path`' to the Matlab workspace.
- For now leave the parameters in part (1) as they are and execute this section to load these parameters into the Matlab workspace.
- Run `expsim` with these parameters by executing section (2)
- Finally execute section (3) to plot your results. This section will generate two different plots, one with a response in it defined by the parameters set in part (1) and one without any response in it as a control. The file names will reflect the parameters used for these plots. For further details see Figure 2 in the publication that introduced the h-coefficient.

For further information type `help Doitall` or `help expsim` into the command window in Matlab and refer to publication that introduces the h-coefficient (submitted).