Notes for the scripts:

- It is necessary to install Python and R in order to run the evaluation
  scripts. All packages that are queried are named in the header of the
  code, and these may also require installation. You also may want to
  install Fiji by ImageJ and its Plug-In ‚ThunderSTORM'.

  Links:

  - R and RStudio (both):
      https://posit.co/download/rstudio-desktop/

  - Anaconda for Python & Jupyter Notebook:
      https://www.anaconda.com

  - Fiji & ThunderSTORM:
      https://imagej.net/software/fiji/
      https://zitmen.github.io/thunderstorm/

- It is necessary to create a directory within the R script in which the
  data is to be saved prior to executing the code. This directory is
  referenced by the R script as "Ripley&PCF_v9.R" and must be specified at
  the outset of the code.

- The pipeline for evaluation is as follows:

  1. To ascertain the localization of points, one may utilize 'SMLM.ipynb'
     via TIFF stacks, 'ThunderSTORM,' or 'Find Maxima' via individual
     images (in Fiji) or an alternative program.

  2. Localizations may be stored in a number of different formats.
     Nevertheless, two representations of the point processes are of
     particular significance in the evaluation process.

     1. A .csv file with header, 'X' in the first column and 'Y' in the
        second column, so that the coordinate pairs of a point are noted
        line by line in the .csv file.
     2. The matrix representation from 'SMLM.ipynb' as a .csv file.

     - In order to determine the persistent homologies, it is necessary
        to utilize the coordinate matrices provided in the 'SMLM.ipynb'
        script. The aforementioned matrices are generated by the
        'SMLM.ipynb' script and stored in the 'smlm' folder,
        specifically in the 'Orte' subfolder. The 'Ripley&PCF_v9.R'
        script employs scatter plots, Ripley's functions, and pair
        correlation functions (PCF) and requires the matrices generated
        in step 2.1.

  3. The coordinate matrices from section 2.1 can be imported into the
     Ripley&PCF_v9.R file subsequent to the commencement of the Shiny
     application. Subsequently, the results are plotted. The tabular
     listing of the results is presented below. To save all displayed
     images and the table in the desired directory, select the "Save"
     button.

  4. In contrast to the 'Ripley&PCF_v9.R' file, the
     'Persistent-homology.ipynb' file is capable of reading and evaluating
     multiple data records simultaneously. The program requires a data
     storage location, which can be selected via the graphical user
     interface (GUI). The resulting data are stored in the specified
     directory.