

How to generate/replicate Suppl. Table 5:

Suppl. Table 5. Statistics for PPI networks.

1. Running the code

To run the code, execute the function *run_suppl_table5* with one of these options:

- Option 1: 1 to generate item with existing results. Usage: *run_suppl_table5(1)*.
- Option 2: 2 to recreate item from original data, involving all required computations. Usage: *run_suppl_table5(2)*.

Here is an overview of the execution of each option. The execution times reported below are measured executing the code in Windows 10 Pro with 256 GB RAM, and AMD Ryzen Threadripper PRO 3995WX 64-Cores CPU with 2.70 GHz. The software environment is MATLAB 2019a.

Option 1: Total execution time **negligible**

Runs *create_suppl_table5* to generate item with existing results located in data folder. In data folder, there is:

- *original_data*: contains the raw data downloaded from their source.
- *statistics*: contains Excel sheets of the topological measures values of the original networks. The subfolder “results” contains the topological measures computed for the original networks of each organism saved in Matlab.
- *script*: contains *create_suppl_table5* script.

Option 2: Total execution time ~8 min

All the results of the following scripts are stored in the directory *data_replicated*. Below are the different steps to implement the computation:

- In order to download the data, follow the instructions reported in the file *instructions to download the data* located inside the folder “data”.

- *create_[NAME PPI NET]* : create the adjacency matrix for each 16 PPI networks. Outputs in “matrix”. Total execution time: ~**5 min.**
- *Run_compute_statistics_original*: computes several topological measures based on original network for various organisms. Outputs in “statistics/results”. Total execution time: ~**3 min.**
- *create_suppl_table5*: create Suppl. Table 5. Total execution time: **negligible time.**