

Tutorial for the Wilcoxon-Mann-Whitney test

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1 About the algorithm

This online tool provides a solution of the Wilcoxon-Mann-Whitney (WMW) test that calculates the exact solution without any corrections. The algorithm is able to provide the exact solution for tied and non tied data sets. In addition, an optimization for tied data is provided, which allows a faster calculation for tied samples. For large input data the algorithm will take a few minutes to calculate the exact solution. Large cohorts where m and n are bigger than 200 will take a few minutes for non tied data. We propose to input at most cohorts of 400 for non tied data and 500 for tied samples. More information to the test can be found in the Bachelor's thesis to this algorithm [1].

2 Usage

To run the algorithm just follow the steps explained below.

1. Input your sample data into the two text boxes. For floating point numbers use dots to mark the floating point. To separate your elements you can use newlines, tabs or spaces. An example can be seen in Figure 1.
2. In the next step click the "Run" button and the algorithm will start.
3. Figure 3 shows the state of the tool while it is running. For larger samples it will take a while and a progress bar will appear. The progress bar might freeze if the page loses focus, but this does not mean that the program stopped.
4. Finally, the progress bar disappears and the result is shown below.

References

- [1] Alexander Marx. Wilcoxon-Mann-Whitney-Test - A Dynamic Programming Approach. Bachelors thesis, Saarland University, 2014.

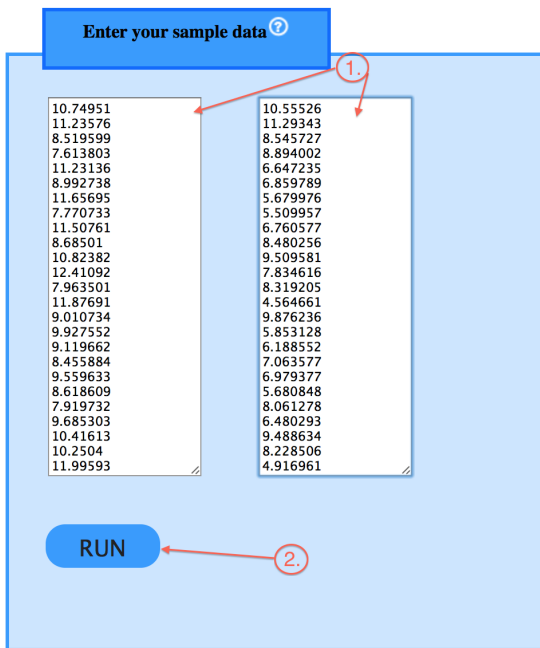


Figure 1: Input sample data

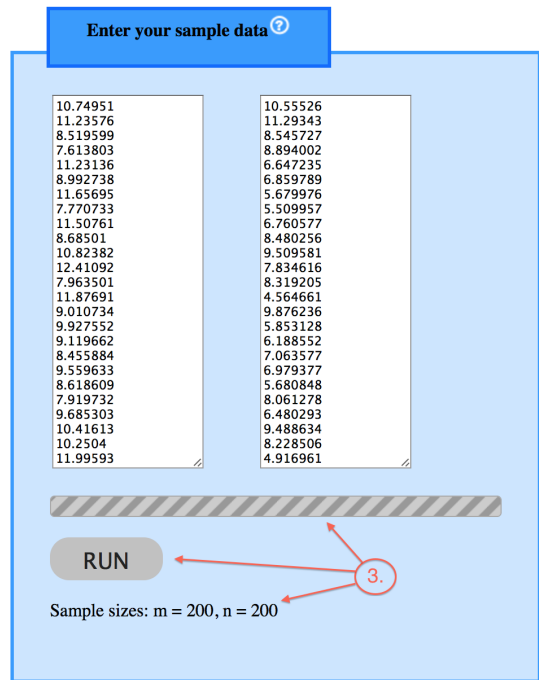


Figure 2: Tool is running

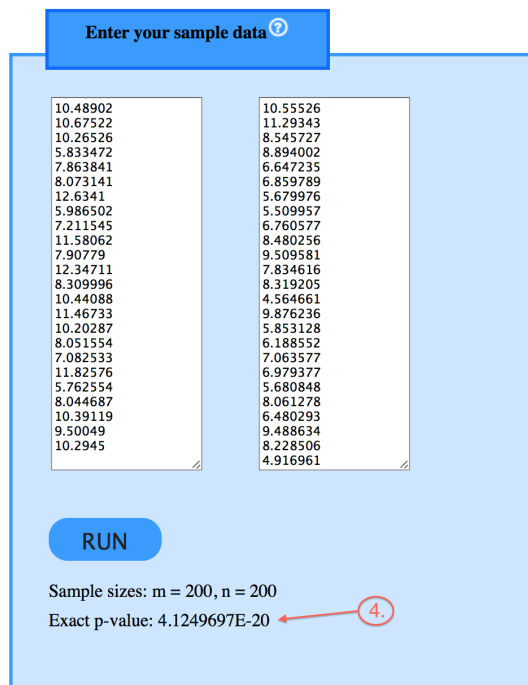


Figure 3: Result