

# READ ME - Academic Influence Analyzer

Attached in this folder are documents that display an author's influence, the frequency of citations to the author appearing in his/her citing papers. This document will outline the purpose of tables/graphs included.

## Definition: Influence

This tool's definition of influence is as follows: given an Author, how many times does his/her citing papers make repeated citations to him/her. This relation is visualized in Figure 1.

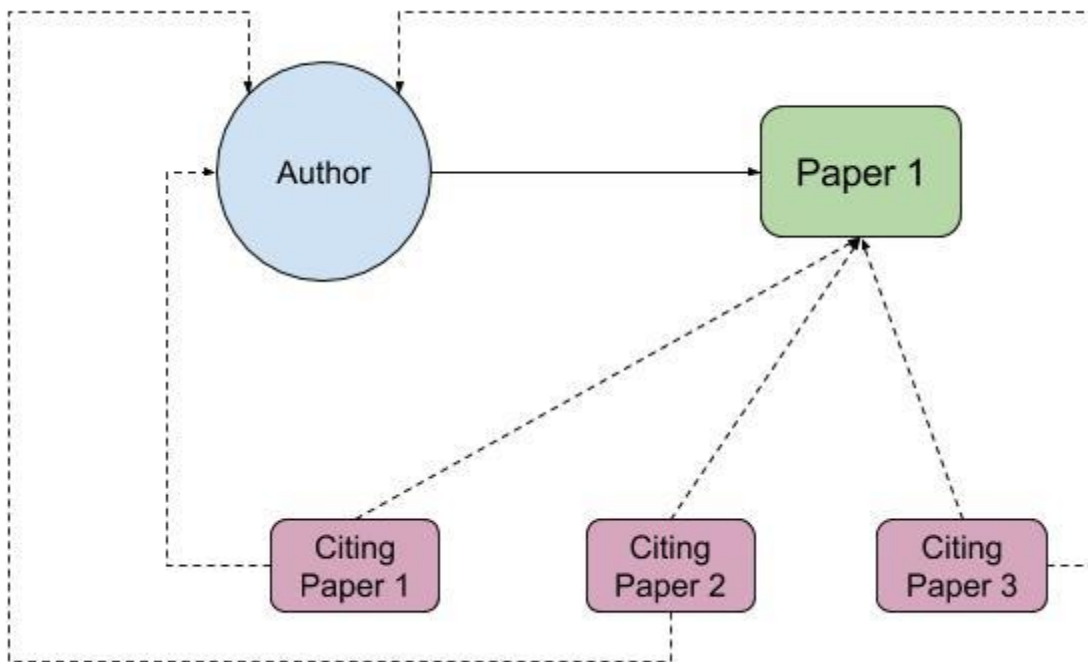


Figure 1: Diagram depicting influence relation. Measure how many time each of citing papers 1, 2, and 3 cite Author.

## Lower and Upper Influence.

We define lower influence as an author's influence among his/her least cited citing papers. We define upper influence as the influence among an author's most cited citing papers.

In other words, the lower influence of an Author X measures how many times each citing paper of X cites X, for the citing papers of X that are least cited by other papers, and the upper influence would be the opposite.

## **File Purposes**

Data analysis is based on two parameters of Author X: N papers and M citing papers for each paper. The N papers are the N top cited papers of Author X. Then from these N papers, upper and lower influence is generated. Upper influence data is taken from the M most cited citing papers from each of the N papers. Lower influence data is taken from the M least cited citing papers from each of the N papers. Then 3 types of files are generated.

For each type of file below, there is an “upper” and a “lower” version for upper and lower influence respectively.

### **1. Influence\_authorx.csv**

The influence CSVs give data in a spreadsheet. It sums the number of times each citing paper of Author X cites Author X in total for the given data.

### **2. Bar\_authorx.png**

The bar graphs show the top 25 citing papers (or all of them if there is less than 25) ordered by the number of citations they make to Author X.

### **3. Hist\_authorx.png**

The histograms show the frequencies of all papers with greater than ten citations to Author X.