

Comparison of different measures of scientific productivity and bibliography

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Agenda

1 Introduction

2 Bibliometrics

- Impact factor

3 Researcher's metrics

Scientific productivity

how much output does a scientist produce within a certain time period

The major outputs from the research :

- Publications

- Patents

- Product developments

Among the publication forms, peer-reviewed journal articles are most frequently used as a productivity measure.

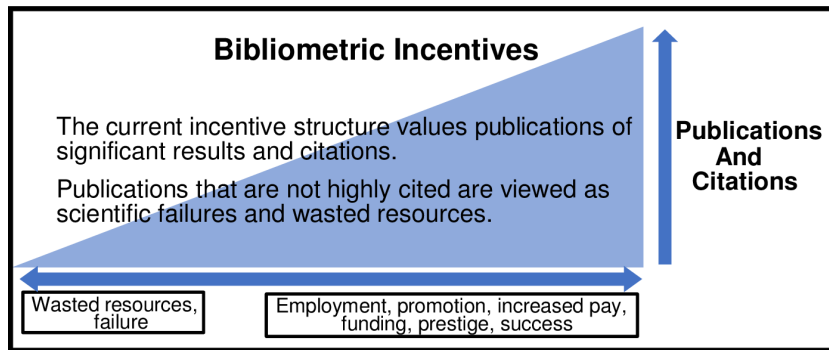


Figure 1: The current bibliometrics incentives model.

Impact factor

The Impact Factor is the average number of citations received by articles in a journal within a two-year window

$$IF(x) = \frac{Citations(x)}{Publications(x-2) + Publications(x-1)}$$

For example, Nature had an impact factor of 49.962 in 2020:

$$IF(2020) = \frac{Citations(2020)}{Publications(2018) + Publications(2019)} = 49.962$$

Note that 2020 impact factors are reported in 2021; they cannot be calculated until all of 2020 publications have been processed by the indexing agency.

Impact factor limitations

Pros

- ✓ it helps compare journals of the same field. It gives an idea of the journal's relative importance and reputation.

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Altmetric Attention Score

The Altmetric Attention Score tracks a wide range of online sources to capture the conversations happening around academic research.

Blocks and columns and simple animation

Sample ordinary block

You can use *columns* environment to split a slide into 2 or more parts.

Props and cons lists

Use *proplist* and *conslist* environments to show props and cons as a list respectively.

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Sample example block

Example: For example you can implement props and cons with use of columns.

Sample citations

Citation in \LaTeX with Bibtex

To cite something just add your bibitem in *references.bib* file and use *cite* command with corresponding name. Everything else will happen **automatically!**

I claim something very important and have to cite this paper [?], this article [?], book [?] and preprint [?].

Where to find citation bibtex item

Please use citation *BibTeX* item from Google Scholar



Figure 2: Big picture

If you want 2 side image, use *subfigures*



(a) White



(b) Blue

Figure 3: Main caption

References I