The influence of random removal of sources and items on the h-index

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by

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ABSTRACT

If we have two information production process with the same h-index we show that random removal of items causes one system to have a higher h-index than the other system while random removal of sources causes the opposite effect. In conclusion, we warn for the use of the h-index in case of incomplete data sets.

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Introduction

The Hirsch-index (or h-index) Hirsch (2005)) is now a well-established indicator of impact of an object (journal, author, topic, institute,…) (Braun, Glänzel and Schubert (2005, 2006), Banks (2006), van Raan (2006)). Yet several disadvantages of the h-index have been revealed in the literature – see Egghe (2010a) for an extensive review on h-type indices up to (and including) 2008.

A problem of any indicator is the incompleteness of the data set. In Egghe (2010b) a heuristic study was done on how the h-index is influenced by the deletion of items and/or sources

II.

Lemma II.1:

III.

III.1

References

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