Bibliometrics: A Practical Approach

Metrics

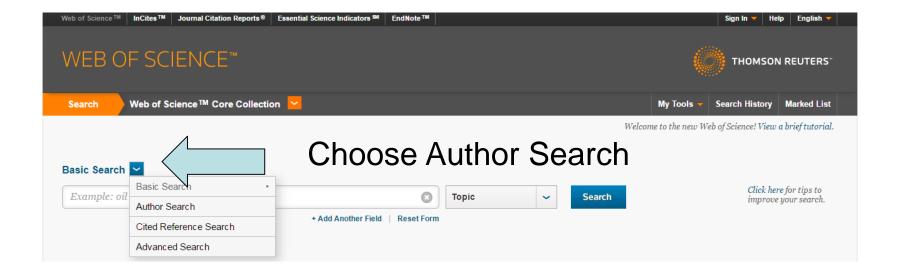
- Individual
- Collaborative
- Altmetrics
- Relative / Normalized

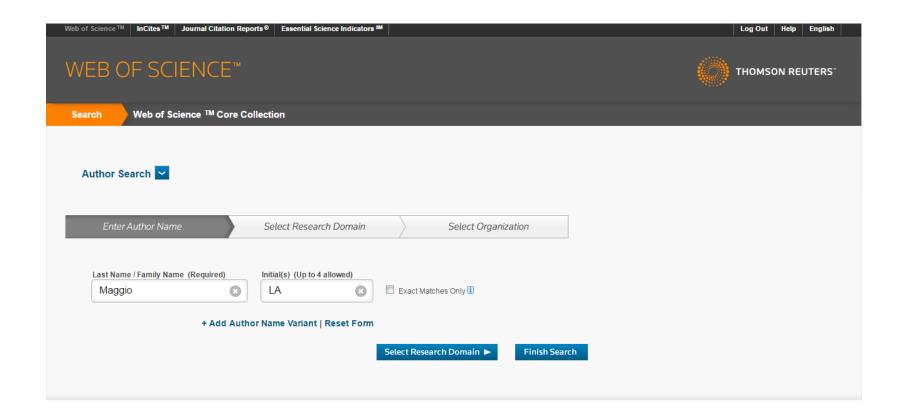
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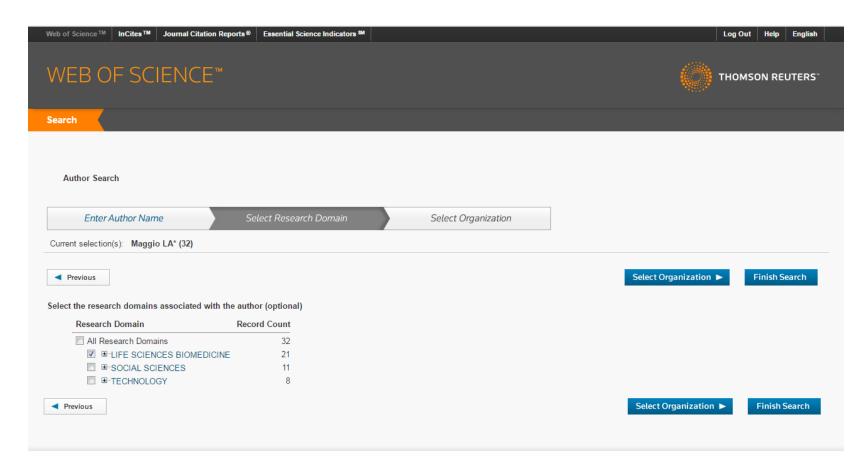
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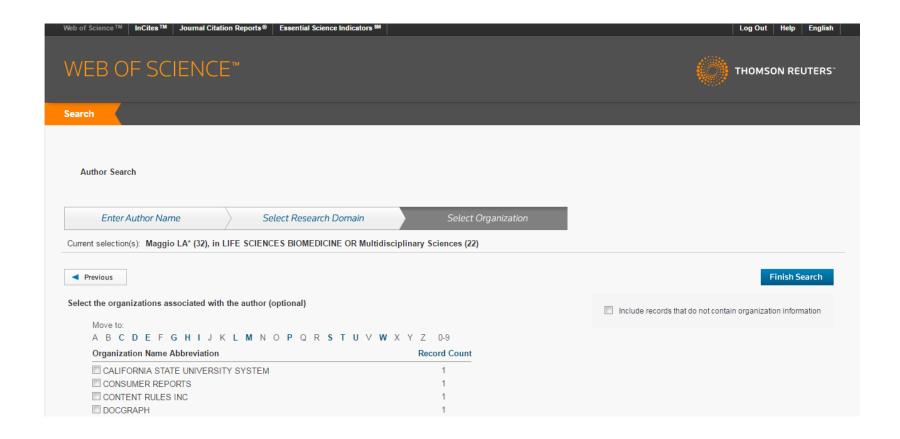
Three common questions

- Total number of publications
- Total number of citations
- Quality of journals Impact Factor

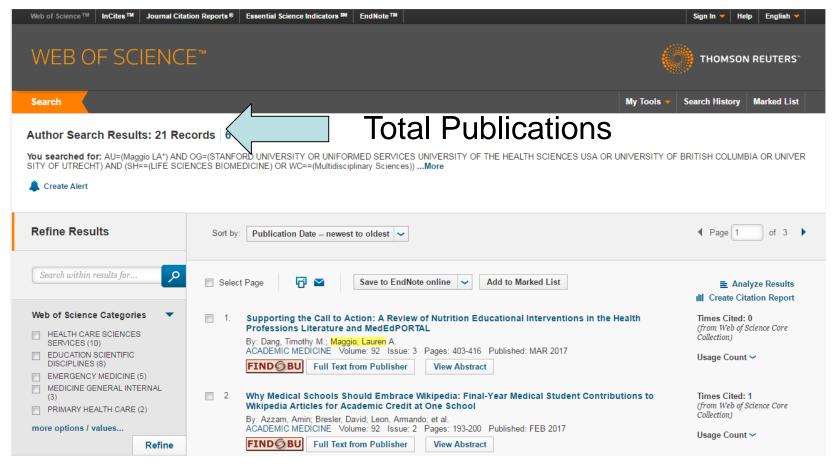






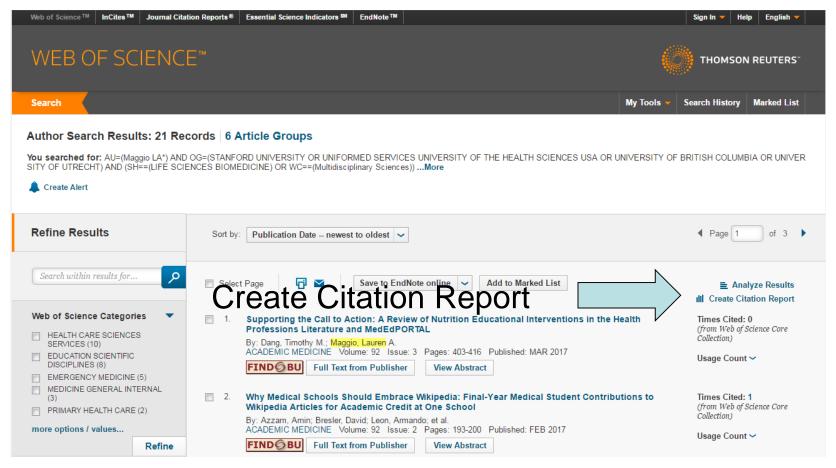






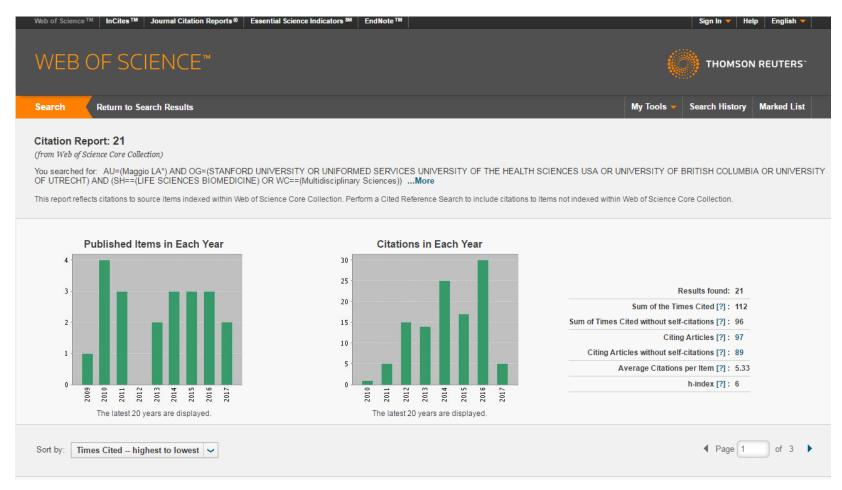


Finding Citations

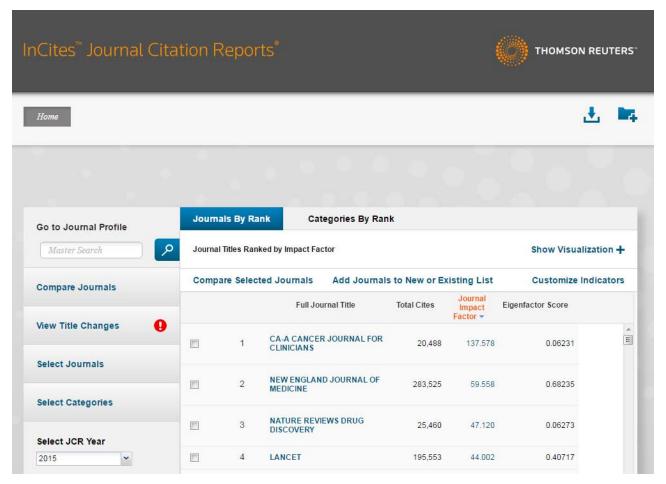


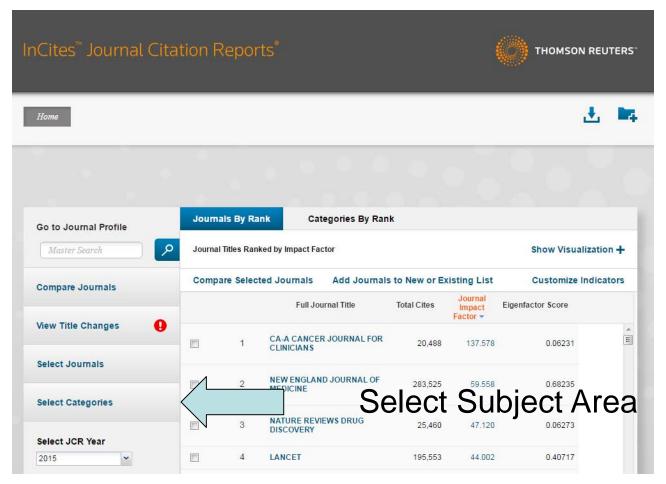


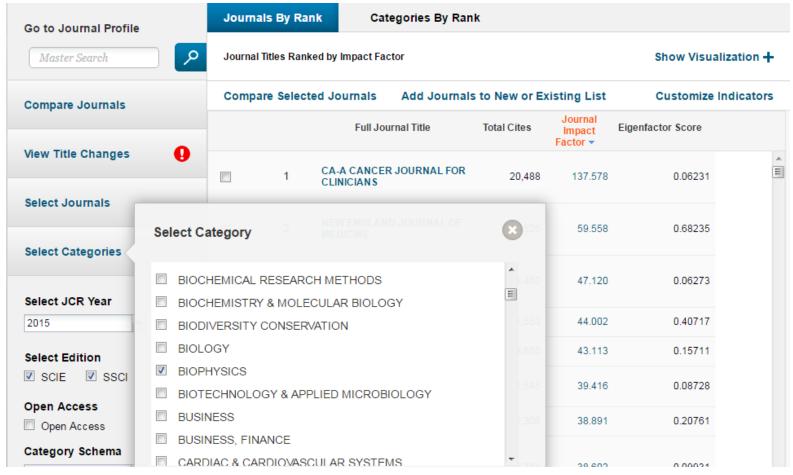
Finding Citations

















h-Index

PNAS

An index to quantify an individual's scientific research output

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Communicated by Manuel Cardona, Max Planck Institute for Solid State Research, Stuttgart, Germany, September 1, 2005 (received for review August 15, 2005)

I propose the index h, defined as the number of papers with citation number $\geq h$, as a useful index to characterize the scientific output of a researcher.

- (i) Total number of papers (N_p). Advantage: measures productivity. Disadvantage: does not measure importance or impact of papers.
- (ii) Total number of citations ($N_{c,tot}$). Advantage: measures

h-Index

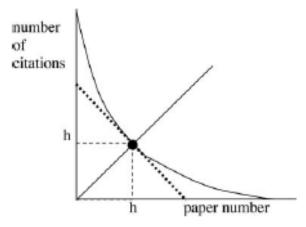
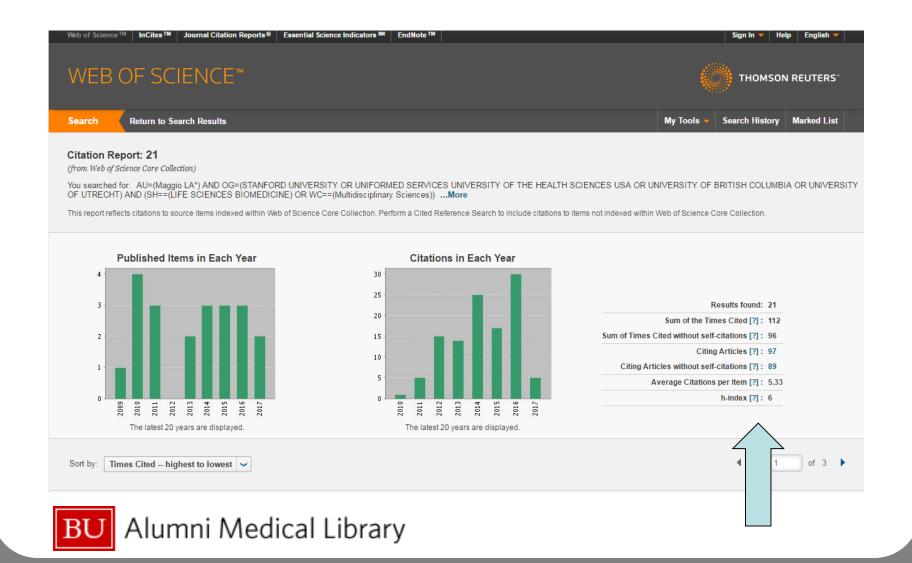


Fig. 1. Schematic curve of number of citations versus paper number, with papers numbered in order of decreasing citations. The intersection of the 45° line with the curve gives h. The total number of citations is the area under the curve. Assuming the second derivative is nonnegative everywhere, the minimum area is given by the distribution indicated by the dotted line, yielding a=2 in Eq. 1.

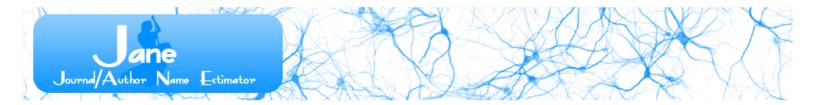
Hirsch JE. An index to quantify an individual's scientific research output. *Proc Natl Acad Sci USA*. 2005;102(46):16569-16572. doi:10.1073/pnas.0507655102.

h-Index



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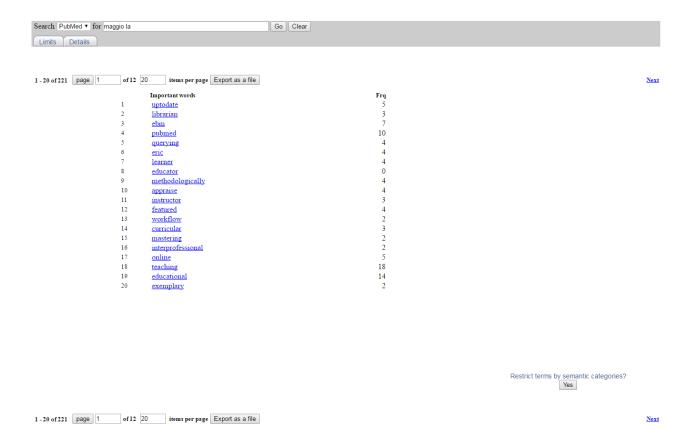
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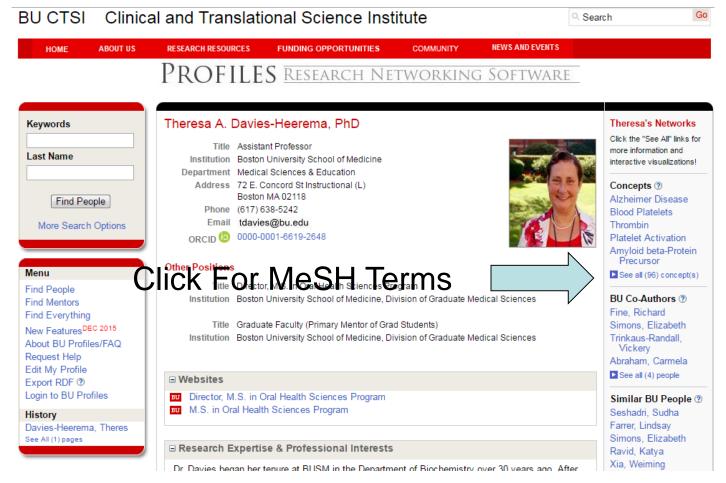


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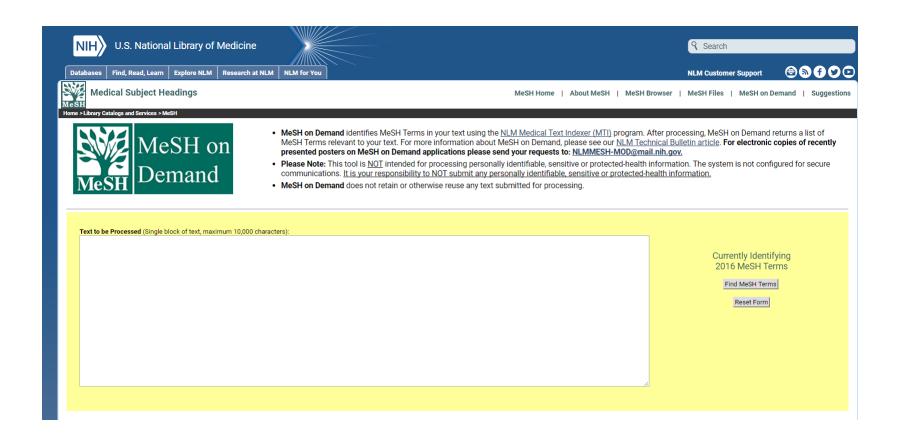
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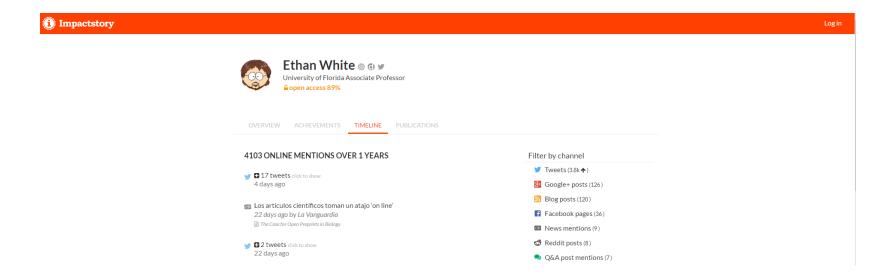
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1. Cognitive reserve as a modifier of clinical expression in chronic traumatic encephalopathy: A preliminary examination.



Altmetric



Altmetric in BU Profiles

- 1. Vasilescu DM, Phillion AB, Tanabe N, Kinose D, Paige DF, Kantrowitz JJ, Liu G, Liu H, Fishbane N, Verleden SE, Vanaudenaerde BM, Lenburg M, Stevenson CS, Spira A, Cooper JD, Hackett TL, Hogg JC. Nondestructive cryomicro-CT imaging enables structural and molecular analysis of human lung tissue. J Appl Physiol (1985). 2017 Jan 01; 122(1):161-169. View Related Profiles. PMID: 27856720. Attentic 3
- 2. Rahman SM, Ji X, Zimmerman LJ, Li M, Harris BK, Hoeksema MD, Trenary IA, Zou Y, Qian J, Slebos RJ, Beane J, Spira A, Shyr Y, Eisenberg R, Liebler DC, Young JD, Massion PP. The airway epithelium undergoes metabolic reprogramming in individuals at high risk for lung expect. ICL Insight. 2015. New 47: 4(19):e88814 View Related Profiles. PMID: 27882349 [Altridated Profiles.]
- 3. Kusko RL, Brothers JF, Tedrow J, Pandit Integrated Genomics Reveals Converger Profiles. PMID: 27104832. Attractric 89 On 2 Facebook pages

dela B, Kass D, Zhang S, Lenburg M, Martinez F, Quackenbush J, Sciurba F, Limper A, Geraci M, Yang I, Schwartz DA, Beane J, Spira A, Kaminski N. ic Obstructive Pulmonary Disease and Idiopathic Pulmonary Fibrosis. Am J Respir Crit Care Med. 2016 Oct 15; 194(8):948-960. View Related

4. Moses E, Wang T, Corbett S, Jäckson GF 5 readers on Mendeley
Bronchial Epithelium. Toxicol Sci. 2017 Ja See more details | Close this

5. Lam S, Mandrekar SJ, Gesthalter Y, Allen Ziegler KL, Seisler DK, Midthun DE, Mao JT, Aubry MC, McWilliams A, Sin DD, Shaipanich T, Liu G, Johnson E, Bild A, Lenburg ME, Ionescu DN, Mayo J, Yi JE, Tazelaar H, Harmsen WS, Smith J, Spira AE, Beane J, Limburg PJ, Szabo E. A Randomized Phase IIb Trial of myo-Inositol in Smokers with Bronchial Dysplasia. Cancer Prev Res (Phila). 2016 Dec; 9(12):906-914. View Related Profiles. PMID: 27658890. [Altmetric 1]

Relative / Normalized Metrics

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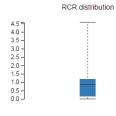
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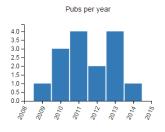
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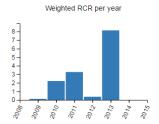
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Graphs







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