

## Author Impact

### PJJ Welfens

Papers:	603	Cites/paper:	3,71	h-index:	23	AWCR:	199,8
Citations:	2236	Cites/author:	1688,13	g-index:	31	AW-index:	14,14
Years:	32	Cites/author/year:	52,75	hc-index:	10	AWCRpA:	145,22
Cites/year:	69,88	Papers/author:	450,16	hl-index:	13,56	e-index:	16,82
		Authors/paper:	1,69	hl,norm:	17	hm-index:	19,87

Query date: 24.03.2014

Hirsch a=4,23, m=0,75  
Contemporary ac=7,99

337 paper(s) with 1 author(s)  
171 paper(s) with 2 author(s)  
58 paper(s) with 3 author(s)  
20 paper(s) with 4 author(s)  
15 paper(s) with 5 author(s)  
2 paper(s) with 6 author(s)

Created with a help of Harzing's Publish or Perish  
Source: <http://www.harzing.com/pop.htm>

Statistics explanation: Total number of papers  
Total number of citations  
Number of years  
Average number of citations per year  
Average number of citations per paper  
Average number of citations per author  
Average number of papers per author  
Average number of papers per author per year  
Average number of authors per paper  
Hirsch's h-index and related parameters  
Egghe's g-index  
The contemporary h-index  
The age-weighted citation rate  
Two variations of individual h-indices  
Zhang's e-index  
An analysis of the number of authors per paper

### Hirsch's h-index

Proposed by J.E. Hirsch in his paper **An index to quantify an individual's scientific research output**, *arXiv:physics/0508025 v5 29 Sep 2005*. It aims to provide a robust single-number metric of an academic's impact, combining quality with quantity.

### Egghe's g-index

Proposed by Leo Egghe in his paper **Theory and practice of the g-index**, *Scientometrics, Vol. 69, No 1 (2006), pp. 131-152*. It aims to improve on the h-index by giving more weight to highly-cited articles.

## Zhang's e-index

Publish or Perish also calculates the e-index as proposed by Chun-Ting Zhang in his paper **The e-index, complementing the h-index for excess citations**, *PLoS ONE*, Vol 5, Issue 5 (May 2009), e5429. The e-index is the (square root) of the surplus of citations in the h-set beyond  $h^2$ , i.e., beyond the theoretical minimum required to obtain a h-index of 'h'. The aim of the e-index is to differentiate between scientists with similar h-indices but different citation patterns.

## Contemporary h-index

Proposed by Antonis Sidiropoulos, Dimitrios Katsaros, and Yannis Manolopoulos in their paper **Generalized h-index for disclosing latent facts in citation networks**, *arXiv:cs.DL/0607066 v1 13 Jul 2006*. It aims to improve on the h-index by giving more weight to recent articles, thus rewarding academics who maintain a steady level of activity.

## Age-weighted citation rate (AWCR) and AW-index

The AWCR measures the average number of citations to an entire body of work, adjusted for the age of each individual paper. It was inspired by Bihui Jin's note **The AR-index: complementing the h-index**, *ISSI Newsletter*, 2007, 3(1), p. 6. The Publish or Perish implementation differs from Jin's definition in that we sum over *all* papers instead of only the h-core papers.

## Individual h-index (original)

The Individual h-index was proposed by Pablo D. Batista, Monica G. Campitelli, Osame Kinouchi, and Alexandre S. Martinez in their paper **Is it possible to compare researchers with different scientific interests?**, *Scientometrics*, Vol 68, No. 1 (2006), pp. 179-189. It divides the standard h-index by the average number of authors in the articles that contribute to the h-index, in order to reduce the effects of co-authorship.

## Individual h-index (PoP variation)

Publish or Perish also implements an alternative individual h-index that takes a different approach: instead of dividing the total h-index, it first normalizes the number of citations for each paper by dividing the number of citations by the number of authors for that paper, then calculates the h-index of the *normalized* citation counts. This approach is much more fine-grained than Batista et al.'s; we believe that it more accurately accounts for any co-authorship effects that might be present and that it is a better approximation of the per-author impact, which is what the original h-index set out to provide.

## Multi-authored h-index

A further h-like index is due to Michael Schreiber and first described in his paper **To share the fame in a fair way,  $h_m$  modifies h for multi-authored manuscripts**, *New Journal of Physics*, Vol 10 (2008), 040201-1-8. Schreiber's method uses fractional paper counts instead of reduced citation counts to account for shared authorship of papers, and then determines the multi-authored  $h_m$  index based on the resulting effective rank of the papers using undiluted citation counts.